# **DEPARTMENT OF THE ARMY**

Procurement Programs



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Committee Staff Procurement Backup Book FY 2001 Budget Estimate

AIRCRAFT PROCUREMENT, ARMY

**APPROPRIATION** 

February 2000

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# Index for AIRCRAFT PROCUREMENT, ARMY

Blin	Nomenclature	SSN	Filename	Page Number
				ì
	P-1 EXHIBIT P-1M EXHIBIT			P. T. 1
·	ARL (TIARA)	A11500	19342103.01P	
2	UTILITY F/W (MR) AIRCRAFT	A11300	19440147.01P	5
က	GUARDRAIL COMMON SENSOR/ACS (TIARA)	A02005	19662103.01P	7
4	UH-60 BLACKHAWK (MYP)	AA0005	16772147.01P	<b>o</b>
5	UH-60 BLACKHAWK (MYP) (ADV PROC)	AA0005	16773147.01P	17
9	GUARDRAIL MODS (TIARA)	AZ2000	11032103.01P	26
7	ARL MODS	AZ2050	11040103.01P	36
8	AH1F MODS	AA0150	12334147.01P	46
6	AH-64 MODS	AA6605	12706137.01P	47
10	CH-47 CARGO HELICOPTER MODS (MYP)	AA0252	13264137.01P	58
7	CH-47 ICH	AA0254	13265137.01P	72
12	CH-47 ICH ADVANCE PROCUREMENT	AA0254	13266137.01P	9/
13	UTILITY/CARGO AIRPLANE MODS	AA0270	14194147.01P	80
4	OH-58 MODS	AA0400	14752147.01P	84
15	AIRCRAFT LONG RANGE MODS	AA0560	15310147.01P	82
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17	LONGBOW (ADV PROC)	AA6670	15683137.01P	86
18	UH-1 MODS	AB0602	16426147.01P	101
19	UH-60 MODS	AA0480	16949147.01P	102
20	KIOWA WARRIOR	AZ2200	17542147.01P	110
21	EH-60 QUICKFIX MODS	AB3000	17728103.01P	114
22	AIRBORNE AVIONICS	AA0700	18472137.01P	118
23	ASE MODS (SIRFC)	AA0720	18844137.01P	131
24	ASE MODS (ATIRCM)	AA0722	18848137.01P	135
25	GATM	AA0701	18858137.01P	139
56	MODIFICATIONS < \$5.0M	AA0725	19030147.01P	145

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27	SPARE PARTS (AIR)	AA0950	10420107.01P	146
28	AIRCRAFT SURVIVABILITY EQUIPMENT	AZ3504	13632137.01P	147
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30	COMMON GROUND EQUIPMENT	AZ3100	15212147.01P	154
31	AIRCREW INTEGRATED SYSTEMS	AZ3110	16380137.01P	163
32	AIR TRAFFIC CONTROL	AA0050	16818147.01P	166
33	INDUSTRIAL FACILITIES	AZ3300	18132144.01P	171
34	AIRBORNE COMMUNICATIONS	AA0705	19161137.01P	173

DEPARTMENT OF THE ARMY 2001 PROCUREMENT PROGRAM

Appropriation: \*\*AIRCRAFT\*\*

Activity: 1. \*\*AIRCRAFT\*\*

			(DOLS)						
LINE NO.	ITEM NOMENCLATURE	۵	FY 00 UNIT		FY 99		FY 00		FY 01
			COST	QTY	COST	QTY	COST	QTY	COST
(1)	(2)	(3)	(4)	(2)	(8)	(6)	(10)	(11)	(12)
	**FIXED WING**								
-	ARL (TIARA) (A11500)				13,019				
2	UTILITY F/W (MR) AIRCRAFT (A11300)			S	26,766	-	5,293		
ო	GUARDRAIL COMMON SENSOR/ACS (TIARA) (A02005)	⋖			1,913				
	SUB-ACTIVITY TOTAL				41,698		5,293		
	**ROTARY**								
4	UH-60 BLACKHAWK (MYP) (AA0005) LESS: ADVANCE PROCURMENT (PY)			53	293,020 -23,219	19	199,286	ဖ	81,205
					269,801		199,286		64,651
ς.	UH-60 BLACKHAWK (MYP) (A40005) ADVANCE PROCUREMENT (CY)						16,554		22,127
	SUB-ACTIVITY TOTAL				269,801		215,840		86,778
	ACTIVITY TOTAL				311,499		221,133		86,778
				•					

## DEPARTMENT OF THE ARMY 2001 PROCUREMENT PROGRAM

Appropriation: \*\*AIRCRAFT\*\*

Activity: 2. \*\*MODIFICATION OF AIRCRAFT\*\*

		Γ	(DOLS)						
LINE NO.	ITEM NOMENCLATURE	٥	FY 00 UNIT		FY 99		FY 00		FY 01
			COST	ΔTY	COST	QTY	COST	QTY	COST
(1)	(2)	(3)	(4)	(7)	(8)	(6)	(10)	(11)	(12)
	**MODIFICATIONS OF AIRCRAFT**								
9	GUARDRAIL MODS (TIARA) (AZ2000)				43,516		18,699		22,626
7	ARL MODS (AZ2050)	⋖					5,777		6,553
æ	AH1F MODS (AA0150)				509	<u> </u>	428		423
6	AH-64 MODS (AA6605)	∢			50,309		32,660		18,516
10	CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)				80,422		114,899		117,083
7	CH-47 ICH (AA0254)								57,630
12	CH-47 ICH (AA0254) ADVANCE PROCUREMENT (CY)								26,200
13	UTILITY/CARGO AIRPLANE MODS (AA0270)	,			10,047		6)96		11,903
4	OH-58 MODS (AA0400)				06		464		462
15	AIRCRAFT LONG RANGE MODS (AA0560)				1,068		754		752
16	LONGBOW (AA6670) LESS: ADVANCE PROCURMENT (PY)				610,167 -36,932		789,167 -43,154		744,846 -35,392
					573,235		746,013		709,454
17	LONGBOW (AA6670) ADVANCE PROCUREMENT (CY)				43,154		35,392		35,000
18	UH-1 MODS (AB0602)				3,758		4,342		4,297

DEPARTMENT OF THE ARMY 2001 PROCUREMENT PROGRAM

Appropriation: \*\*AIRCRAFT\*\*

Activity: 2. \*\*MODIFICATION OF AIRCRAFT\*\*

			(DOLS)						
LINE NO.	ITEM NOMENCLATURE	۵	FY 00 UNIT		FY 99		FY 00		FY 01
			COST	QTY	COST	QTY	COST	QTY	COST
(1)	(2)	(3)	(4)	(7)	(8)	(6)	(10)	(11)	(12)
19	UH-60 MODS (AA0480)				22,671		12,962		3,021
20	KIOWA WARRIOR (AZ2200)				48,721		41,940		41,816
21	EH-60 QUICKFIX MODS (AB3000)						4,872		
22	AIRBORNE AVIONICS (AA0700)				56,299		45,475		60,042
23	ASE MODS (SIRFC) (AA0720)				5,419		11,693		4,487
24	ASE MODS (ATIRCM) (AA0722)						4,901		
25	GATM (AA0701)						7,028		10,073
26	MODIFICATIONS < \$5.0M (AA0725)				1,370		2,564		
	SUB-ACTIVITY TOTAL				940,588		1,100,466		1,130,338
	ACTIVITY TOTAL				940,588		1,100,466		1,130,338

DEPARTMENT OF THE ARMY 2001 PROCUREMENT PROGRAM

Appropriation: \*\*AIRCRAFT\*\*

Activity: 3. \*\*SPARES AND REPAIR PARTS\*\*

FY 01	COST	(12)		15,167	15,167	15,167	
	QTY	(11)					
FY 00	COST	(10)		15,934	15,934	15,934	
	QTY	(6)				Ţ	
FY 99	COST	(8)		27,486	27,486	27,486	
	QTY	(7)					
(DOLS) FY 00 UNIT	COST	(4)	-				
Ω		(3)					
ITEM NOMENCLATURE		(2)	**SPARES AND REPAIR PARTS**	SPARE PARTS (AIR) (AA0950)	SUB-ACTIVITY TOTAL	ACTIVITY TOTAL	
LINE NO.		(1)		27			

DEPARTMENT OF THE ARMY 2001 PROCUREMENT PROGRAM

Appropriation: \*\*AIRCRAFT\*\*

Activity: 4. \*\*SUPPORT EQUIPMENT AND FACILITIES

			(DOLS)						
NO.	ITEM NOMENCLATURE	Q	FY 00 UNIT	,	FY 99		FY 00		FY 01
			COST	QTY	COST	QTY	COST	QTY	COST
(1)	(2)	(2)	(4)	(2)	(8)	(6)	(10)	(11)	(12)
	**GROUND SUPPORT AVIONICS**								
78	AIRCRAFT SURVIVABILITY EQUIPMENT (AZ3504)				10,436		15,280		
	SUB-ACTIVITY TOTAL		<del>_</del>		10,436		15,280		
	**OTHER SUPPORT**		. <del>_</del>						
29	AVIONICS SUPPORT EQUIPMENT (AZ3000)				2,534		8,850		
30	COMMON GROUND EQUIPMENT (AZ3100)				21,837		20,077		11,926
31	AIRCREW INTEGRATED SYSTEMS (AZ3110)				8,972		17,167		3,490
32	AIR TRAFFIC CONTROL (AA0050)			·	16,843		8,684		74,144
33	INDUSTRIAL FACILITIES (AZ3300)			·	1,481		1,449		1,419
发	AIRBORNE COMMUNICATIONS (AA0705)				41,904		43,183		
35	CLOSED ACCOUNT ADJUSTMENT (AZ9999)			, .	10				
	SUB-ACTIVITY TOTAL				93,581		99,410		90,979
	ACTIVITY TOTAL				104,017		114,690		90,979
	APPROPRIATION TOTAL				1,383,590		1,452,223		1,323,262

Exhibit P-1M, Procurement Programs - Modification Summary

	(TOA, Dollars in Millions) 1998 &	n Millions)							욘	Total
System/Modification	Prior	1999	<u>2000</u>	2001	2002	2003	2004	2005 Com	Complete Pr	Program
GUARDRAIL MODS (TIARA) (AZ2000)										
System 2 Block Upgrade	198.8	40.7	18.7							258.2
TIBS and TRIXS for GRCS	27.1									27.1
Mini-IPF				22.6	18.2	3.7	3.7			48.2
ELINT Pod Replacement					6.6	10.3	15.4	3.6		39.2
SIGINT Transistion Program (STP)						14.0	8.8	9.0		31.8
Joint Tactical Terminal (JTT) Integration						2.7	2.0			7.7
Sygate Integration								1.1		1.1
System 4 Remote Relay		3.0								3.0
Total	225.9	43.7	18.7	22.6	28.1	33.7	29.9	13.7		416.3
ARL MODS (AZ2050)										
B-Kits for WKSTS			1.6							1.6
Upgrade to IMINT Suite			2.6	4.6	0.5		5.1			12.8
Radar Improvements			1.6			1.6				3.2
Upgrade to DAMA Compliant Radio				2.0	1.9	3.0				6.9
COMINT Upgrades						5.1	3.0	3.0		11.1
Aircraft Standardization						5.9	5.0	5.0		15.9
Aircraft Survivability Equipment for ARL						5.8	5.8	5.8		17.4
Joint Tactical terminal (JTT) integration						2.0	2.0	2.0		0.9
Airspace 2000						3.0				3.0
Upgrade ARL-M4 & M5 IMINT Suites						2.7				2.7
Total			5.8	6.6	2.4	29.1	20.9	15.8		9.08
AH-64 MODS (AA6605)										
Backup Control System (BUCS)	11.5	8.2			3.6	5.4	12.9	6.2	3.4	51.2
Fuel Control Warning Panel	7.8	1.7	0.5							10.0
Embedded GPS / Inertial NAvigation System (EGI)	82.3	2.3								84.6
H-11 Bolt Replacement	4.8				6.0	6.0	6.0	6.0		8.4
Airframe Modifications	7.4	8.3	9.5	4.8	15.8	14.7	6.4	9.8	7.0	81.0
Alternate Laser Code	32.3	9.6								41.9

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Exhibit P-1M, Procurement Programs - Modification Summary

. (
Prior 17.0
5.4
265.6
17.2
14.5
506.7
26.2
7.1
91.0
124.3
15.5
15.5
981.5
269.6
1251.1

Exhibit P-1M, Procurement Programs - Modification Summary

	(TOA, Dollars in Millions)	in Millions)								
	1998 &								안	Total
System/Modification	Prior	1999	2000	2001	2002	2003	2004	2005	Complete	Program
UH-60 MODS (AA0480)										
Ext Stores Sup Sys (ESSS) Aux Fuel Monitoring Sys (AFMS)	16.9	11.8	1.7							30.4
Halon Changeout	0.1	2.5								2.6
Battery/Power Light Relocate	0.3	2.0	5.5	2.6	9.1	3.4				22.9
NVG Lighting Lower Console	1.9	4.9	4.8	0.4	2.3					14.3
Major UH-60A/L Modification Program						40.3	73.5	140.5		254.3
UH-60Q Medevac	9.4				27.4	10.4	19.3	18.9		85.4
Fire Hawk	2.0									2.0
UH-60L Safety/Operational Modifications							6.7	5.0		11.7
Minor Modification Programs	6.0	1.5	1.0							3.4
Total	31.5	22.7	13.0	3.0	38.8	54.1	99.5	164.4		427.0
KIOWA WARRIOR (AZ2200)										
Crew Station Mission Equipment Trainer (CSMET)	2.4	6.6	1.3							13.6
Safety Enhancement Program	136.9	36.2	38.6	41.8	42.3	42.3	31.4	31.4	195.1	596.0
Digitization (No P-3a Set)	9.8									6
Mast Mounted Site (MMS) (No P-3a Set)	1.4		2.0							3.4
Training Devices (No P-3a Set)	1.6									1.6
Remanufacture (No P-3a Set)	0.606	1.								910.1
Retrofit (No P-3a Set)	480.3	1.0								481.3
Halon Fire Extinguisher (No P-3a Set)	1.8	9.0								2.3
Total	1543.2	48.7	41.9	41.8	42.3	42.3	31.4	31.4	195.1	2018.1
EH-60 OHICKEIV MODS (ABadon)										
Quickfix Upgrades			4.9							4.9
Total			4.9							4.9
AIRBORNE AVIONICS (AA0700)										
Embedded GPS Inertial Navigation System (EGI)	34.5	•		1						34.5
Doppier GPS Navigation System (DGNS) (AN/ASN-128B)	57.8	18.8	15.2	2.7						94.5
Global Positioning System (GPS) [AN/ASN-149]	2.1									2.1

System/Modification	1998 & Prior 1999	1999	2000	2004	2002	2003	7000	2005	To	Total
Morning Data Modem (IDM)		2 2	1 2	1002	7007	5003	# [	<u>conz</u>	analdillon	_,
Imployed Data Modell (IDM)	39.3	0.72	0.0	32.5	47.6	53.7	35.7	46.9	30.3	
Aviation Mission Planning System	29.2	6.6	9.6	9.0	7.1					
Embedded GPS Inertial Navigation System (EGI) PPI			4.2	11.4	18.8	8.6	6.6	14.6	9.1	
Doppler GPS Navigation System (DGNS) (AN/ASN-128B) PPI				4.4	9.5	5.9	8.9	15.3	3.5	
Total	163.1	56.3	45.5	0.09	78.0	68.2	52.4	76.8	42.9	
ASE MODS (SIRFC) (AA0720)										
Laser Detecting Set AN/AVR-2A(V)/AH-64	30.6									
AN/ALQ-211 Suite of Integrated Radio Frequency CMS	127.0	5.4	11.7	4.5	14.3	4.8	4.9	2.2		
Advanced Threat Infrared Countermeasures (ATIRCM)	20.2									
Total	177.8	5.4	11.7	4.5	14.3	4.8	4.9	2.2		
ASE MODS (ATIRCM) (AA0722)										
Advanced Threat Infrared Countermeasures (ATIRCM)			4.9		12.0	12.0	21.1	31.0	199.5	
Total			4.9		12.0	12.0	21.1	31.0	199.5	
GATM (AA0701)										
Global Air Traffic Management(GATM) - Fixed Wing			7.0	6.9	25.7	43.0	33.2	42.7	85.5	
Global Air Traffic Management - Rotary Wing				3.2	28.5	27.2	36.9	27.4	15.7	
Total			7.0	10.1	54.2	70.2	70.1	70.1	101.2	
Grand Total	4039.1	890.8	1056.6	1063.0	1412.7	1534.2	1573.3	1345.4	3230 0	

								Date:				
		Exhibit P-40, Budget		tem Justific	Item Justification Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	al No:					P-1 Item Nomenclature:	re:					
	AIRCRAFT PROC	AIRCRAFT PROCUREMENT / 1 / Aircraft	raft					₹	ARL (TIARA) (A11500)			
Program Elements for Code B Items:	:St			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	82.1	29.7	39.3	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	164.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	82.1	29.7	39.3	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	164.2
Initial Spares												
Total Proc Cost	82.1	29.7	39.3	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	164.2
Flyaway U/C												
Won Svs Proc U/C												

Joint Task Force (JTF) Commanders. ARL is a multi-echelon level, multi-INT (combined SIGINT and IMINT) system, designed for forward deployment/force projection in Moving Target Indicator (MTI) and Synthetic Aperture Radar (SAR). ARL provides near real-time tactical airborne SIGINT and near real time IMINT collection support to SOUTHCOM Statements of Need (SON). The merger of these programs minimizes the acquisition and operational costs, increases availability, and optimizes flexibility with precision Direction Finding (DF) capability and IMINT electro-optics for target identification and classification and multimode capability including wide area search resulting from the integration of the electro-optic and Radio Frequency (RF) sensors into a unified system. The primary sensors will be a Signal Intelligence (SIGINT) intercept and location. The ARL program integrates the capabilities of ARL-I and ARL-C into a single system which satisfies the requirements identified by validated government agencies such as DEA and FEMA. ARL is currently providing an indications and warnings capability to U.S. Armed Forces in Korea. A November 1995 deployable to support contingency operations, and is the airborne Reconnaissance Surveillance Target Acquisition (RSTA) platform of choice for various non-DOD DESCRIPTION: The Airborne Reconnaissance Low (ARL) has evolved from two complementary tactical airborne systems ARL-I (Imagery Intelligence IMINT), an Electro-optic reconnaissance and surveillance system, and ARL-C (communications intelligence COMINT), system which provides real-time highly accurate radio Operations Other Than War (OOTW) to mid intensity conflict environments. ARL also conducts daily JCS Sensitive Reconnaissance Operations, is rapidly self-Department of the Army (DA) Directed Requirement validated the USARPAC/PACOM SON requirement for six ARL-Ms with Electronic Intelligence (ELINT) and MTI/SAR.

JUSTIFICATION: There is no planned program in FY 01 for ARL under this funding line.

Exhibit P-5, Weapon Aircraft Cost Analysis	+	Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft	dget Activity OCUREMEN	/Serial No: {T / 1 / Aircraft		P-1 Line Iten	P-1 Line Item Nomenclature: ARL (TIARA) (A11500)	1500)		Weapon System Lype:		Date.	February 2000
Aircraft	₽		FY 98			FY 99			FY 00			FY 01	
Cost Elements	8	TotalCost	λίσ	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
AIRCRAFT Flyaway Costs		\$000	Each	\$000	\$000	Each	\$000	000\$	Each	000\$	000\$	Each	\$000
Airframes/CFE ARL-M Systems 4&5 B-Kits for WKSTS Modify Airframe to ARL-M Config w/Sensors		26480	2 +	13240 4766	9636								
Upgrade to IMINT Suite (HW) - ARL-I					2903	-	2903						
Y2K Retrofit Subtotal Flyaway Costs Non-Recurring Costs Tooling Equipment Other System Test Total Flyaway		31246			973 10512 10512								
Support Cost Engineering Support Program Management (Admin Support) GFE Fielding Peculiar Training Equipment Engineering Change Orders Other (Testing/Spares) Subtotal Support Cost		831 3017 358 1222 2660 8088			100 972 1185 250								
Gross P-1 End Cost Less: Prior Year Adv Proc Net P-1 Full Funding Cost Plus: P-1 CY Adv Proc Other Non P-1 Costs Initial Spares Mods		39334 39334			13019								
TOTAL		39334			13019								

Exhibit F	Exhibit P-5a, Budget Procurement History and Planning	listory ar	nd Planning					Date: Fe	February 2000	
Appropriation / Budget Activity/Serial No:	)	Weapon System Type:	m Type:		P-1 Line Item Nomenclature:	lomenclature:				
AIRCRAFT PROCUREMENT / 1 / Aircraft							ARL (TIARA) (A11500)	200)		
WBS Cost Elements:	Contractor and Location	Contract Method	Location of PCO	Award Date Date of First	Date of First	ΩTY	Unit Cost	Specs Avail	Date RI Revsn	RFP Issue Date
Fiscal Years		and Type			Delivery	Each	\$000	Now?	Avail	
FY98 ARL-M Systesm 4&5 B-Kits for Workstations per aircraft/imagery sensors and high performance multimide radar	Cal Microwave, Belcamp, MD	C/FP	СЕСОМ	Dec-97	Jul-99	Ν	13240	Yes	o Z	
Modify Airframes to ARL-M config w/sensors	Cal Microwave, Belcamp, MD	C/FP	СЕСОМ	Feb-98	Feb-00	-	4766	Yes	2	
FY99 Upgrade to IMINT Suites	Cal Microwave, Belcamp, MD	C/FP	СЕСОМ	Feb-98	Feb-00	<b>~</b>	2903	Yes	o N	
REMARKS:										

FY 2000 / FY 2001 BUDGET PRODUCTION SCHEDULE	RODU	CTION	SCHE	DULE			<u>.</u>	tem n	ошеш	P-1 Item Nomenclature:		ARL (TIARA) (A11500)	ARA) (/	11500	<u> </u>						Cate:				February 2000	ary 200	2		
			_	PROC	ACCEP.	BAL				ľ	isca	Fiscal Year 99	66-	l	l		F			۱	F	Fiscal Year 00	rear	e	l	l		H	L
	Σ			_	PRIOR	DUE	L		H				Calendar Year 99	ndar	Year	66				L		ပြ	lend	lar Y	Calendar Year 00	0			4
COST ELEMENTS	πк	<u>ራ</u>	шк>		то 1 ост	AS OF 1 OCT	0 U F	z 0 >	ОШО	¬ ∀ Z	2 4 K	< 0 €	Σ∢≻	γDΖ	7 2 7		оп <del>г</del> Оо ⊢	z 0 >	ΔШО	¬ ∢ Z	тпе	≥ ∢ Ľ	4 G X	۲۶₹	$\neg \supset Z$	7 0 7	∢ ⊃ დ	οшι	<b>-</b> ⊔ &
ARL-M Systems 4&5										Н	Щ					$\dashv$											$\dashv$	_	
Airframes with MTI/SAR	1	-26	٨	2		2			$\dashv$	$\dashv$	-				-			_	-							1	$\dashv$	+	
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				1			$\prod$	$\perp$	+	+	-	4		T	十	+	+	+	4	$\perp$	$\perp$			T	1	十	+	$\dagger$	T
							$\prod$	]	$\dashv$	+	+	4		1	7	$\dashv$	+	+	4	4						$\dashv$	+	+	
									+	$\dashv$	$\dashv$	4	$\Box$			$\dashv$	$\dashv$	+	4	4					7	7	+	+	
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Exhibit P-40, Budget Item Justification Sheet	

								Date:				
		Exhibit P-4	0, Budget It	Exhibit P-40, Budget Item Justification Sheet	ation Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	ial No:					P-1 Item Nomenclature:	ıre:					
	AIRCRAFT PROCE	AIRCRAFT PROCUREMENT / 1 / Aircraft	raft					UTILITY	UTILITY F/W (MR) AIRCRAFT (A11300)	(A11300)		
Program Elements for Code B Items:	ns:			Code:	Other Related Program Elements:	am Elements:						
				∢								
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	2	5	5	5	٦		2	2	2	2	37	89
Gross Cost	21.8	21.8	22.0	26.8	5.3	0.0	14.3	14.3	15.1	15.1	259.0	415.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	21.8	21.8	22.0	26.8	5.3	0.0	14.3	14.3	15.1	15.1	259.0	415.6
Initial Spares												
Total Proc Cost	21.8	21.8	22.0	26.8	5.3	0.0	14.3	14.3	15.1	15.1	259.0	415.6
Flyaway U/C												
Wpn Sys Proc U/C												
DESCRIPTION:												

The Cessna UC-35 (Medium Range) aircraft is a fully integrated, two-pilot crew, 6-8 passenger capability, multi-engine system with worldwide self-deployability. It has advanced technology, while being a non-developmental, fixed wing aircraft system. The UC-35 aircraft is being fielded using the concept of Life Cycle Contractor Support. JUSTIFICATION: The FY 01 budget provides no funding for UC-35 procurement.

Exhibit P-5, Weapon Aircraft Cost Analysis		Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Airo	Sudget Activity ROCUREMEN	ppropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft		P-1 Line Iten UTILITY I	P-1 Line Item Nomenclature: UTILITY F/W (MR) AIRCRAFT (A11300)	AFT (A11300)		Weapon System Type:	Туре:	Date: Feb	February 2000
Aircraff	Ω		FY 98			FV 90			20 22				
Cost Elements	0	TotalCost	Qf Of	UnitCost	TotalCost	Oty Oty	UnitCost	TotalCost	₽	UnitCost	TotalCost	2 4	UnitCost
AIRCRAFT Flyaway Costs	$\prod$	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
Airframes / CFE Avionics A. GFE Other GFE Armament (FCR)					22,780	တ	4,556	4900	-	4900			
ECO (All Flyway Components) Other Costs (Halon) Subtotal Flywway Costs Non-Recurring Costs Tooling Equipment					23,756			5100					
Total Flyaway					23,756			5100					
Support Cost Engine (leftover A model) Airframe PGSE Engine PGSE Peculiar Training Equipment Publications Tech / Data Engineering Change Orders Other (specify) Net/ICS/Mtxsupt Subtotal Support Cost					249 2 1,426			1 192 <b>193</b>					
Gross P-1 End Cost l ess: Prior Year Adv Proc					25,433		,	5293					
Net P-1 Full Funding Cost Plus: P-1 CY Adv Proc Other Non P-1 Costs					25,433			5293				-	
Initial Spares Mods					1,333								
							7						
							<u></u>						
TOTAL					26,766			5293					

								Date:				
		Exhibit P-40, Budget I		tem Justific	tem Justification Sheet					<b>February 2000</b>		
Appropriation / Budget Activity/Serial No:	ial No:					P-1 Item Nomenclature:	ıre:					
	AIRCRAFT PROC	AIRCRAFT PROCUREMENT / 1 / Aircraft	raft					GUARDRAIL COM	GUARDRAIL COMMON SENSOR/ACS (TIARA) (A02005)	(TIARA) (A02005)		
Program Elements for Code B Items:	S:			Code:	Other Related Program Elements:	am Elements:			;			
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	710.6	4.9	12.5	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	729.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	710.6	4.9	12.5	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	729.9
Initial Spares	117.6	11.3	0.8									129.7
Total Proc Cost	828.2	16.2	13.3	1.9	0.0	0.0	0:0	0:0	0:0	0.0	0.0	859.6
Flyaway U/C												
Wpn Sys Proc U/C												
				ine bac tac	and and an extension by the first form of the same of	rotop motor.	Sirona of bor	Pacamaco of	Stine ditte	Joint hot loc	d information	o oi

DESCRIPTION: GUARDRAIL is an Airborne Signal intercept and emitter location system designed to provide commanders with critical battlefield information via a Commanders' Tactical Terminal (CTT) and other DoD tactical and fixed communication systems. The Army's GUARDRAIL/Common Sensor Systems (GRCS) will have a highly flexible architecture to allow deployment to support contingency operations.

accuracy target location capability in communications and radar frequencies. The Interoperable Data Link (IDL)/Multi-Role Data Link (MRDL) connects the airborne elements and the ground processing element. Additional funding was provided in FY98 to integrate production CHAALS hardware into GRCS System 3 in Korea and to Ground processing is conducted in the Integrated processing facility (IPF). Key performance requirements include a real-time COMINT and ELINT collection and high intelligence (ELINT) and precision emitter location into a single signal intelligence (SIGINT) system. The airborne elements are integrated into the RC-12K/N/P aircraft. High Accuracy Airborne Location System (CHAALS-X) for COMINT and precision emitter location, and the Advanced QUICKLOOK (AQL) for electronics The GUARDRAIL/Common Sensor System (GRCS) integrates the improved GUARDRAIL V for communications intelligence (COMINT), the Communications fund additional embedded training efforts.

The current GRCS capabilities will be merged with those of the Airborne Reconnaissance Low (ARL) into a single airborne system (the Aerial Comon Sensor (ACS) program) capable of providing a rapid response information dominance capability to land component commanders in the early 21st century.

JUSTIFICATION: No Planned Program.

Exhibit P-5, Weapon	Ť	Appropriation/ Budget Activity/Serial No:	dget Activity,	Serial No:		P-1 Line Iten	P-1 Line Item Nomenclature:		Ĺ	Weapon System Type:		Date:	
Aircraft Cost Analysis		AIRCRAFT PROCUREMENT / 1 / Aircraft	OCUREMEN	VT / 1 / Aircraft		GUARDI	GUARDRAIL COMMON SENSOR/ACS (TIARA) (A02005)	SENSOR/ACS 35)				Febr	February 2000
Aircraft   "	Q		FY 98			FY 99			FY 00			FY 01	
ints	CD	TotalCost	Qty	UnitCost	TotalCost	Oth	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
AIRCRAFT Flyaway Costs	Т	000\$	Each	000\$	\$000	Each	000\$	000\$	Each	000\$	000\$	Each	\$000
Airframes / CFE Avionics A. GFE Other GFE Armament (FCR) ECO (All Flyaway Components) Other Costs (Halon) Subtotal Flyaway Costs Non-Recurring Costs Tooling Equipment Other System Test Total Flyaway Support Cost Government In-House/Program Mgmt		103											
Test &Integration Facility Fielding/ICS CHAALS Embedded Training Engineering Change Orders Other (specify) Net/ICS/Mtxsupt Subtotal Support Cost		448 2535 2955 6459 <b>12500</b>			1913								
Gross P-1 End Cost Less: Prior Year Adv Proc Net P-1 Full Funding Cost Plus: P-1 CY Adv Proc Other Non P-1 Costs Initial Spares Mods		12500 12500 13270			1913 1913 1913 1913								

								Date:				
		Exhibit P-4	Exhibit P-40, Budget Item Justification Sheet	em Justific	ation Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	ial No:					P-1 Item Nomenclature:	ıre:					
	AIRCRAFT PROC	AIRCRAFT PROCUREMENT / 1 / Aircraft	raft					UH-60 BL	UH-60 BLACKHAWK (MYP) (AA0005)	AA0005)		
Program Elements for Code B Items:	ПS:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	1418	34	28	29	19	9	6	22	12	16		1593
Gross Cost	7352.7	288.0	321.5	293.0	199.3	81.2	110.8	233.7	159.6	222.1		9262.0
Less PY Adv Proc	2210.4	72.8	65.1	23.2		16.6	19.5	42.6	40.9	58.2		2549.3
Plus CY Adv Proc	2283.2	65.1	23.2		16.6	22.1	42.3	45.7	51.0			2549.3
Net Proc (P-1)	7425.5	280.4	279.6	269.8	215.8	86.8	133.6	236.9	169.7	164.0		9262.0
Initial Spares	410.0	5.4	2.4	3.5								421.3
Total Proc Cost	7835.5	285.8	282.0	273.3	215.8	86.8	133.6	236.9	169.7	164.0		9683.3
Flyaway U/C	5.0	7.9	10.3	8.8	8.8	8.3	9.1	9.3	10.5	11.8		5.4
Wpn Sys Proc U/C	5.5	8.6	11.6	10.2	10.5	13.5	12.3	10.6	13.3	13.9		6.1
DESCRIPTION												

21st century. The BLACK HAWK is used in the performance of the Air Assault, General Support and Aeromedical Evacuation missions. It is designed to carry a crew of four and 11 combat-equipped troops or an external load up to 9,000 pounds. It performs the missions of transporting troops and equipment into combat, resupplying the The UH-60 BLACK HAWK is a twin engine, single rotor helicopter that is designed to support the Army's air mobility doctrine for employment of land forces into the troops while in combat, and performing the associated functions of aeromedical evacuation, repositioning of reserves, and command and control.

## JUSTIFICATION

procured by FY 2005. Further, total annual quantities have been coordinated with the United States Navy (USN), assuring contract compliance. Due to the absence of Administration) was utilized for completion of the General Officer Steering Committee (GOSC) led Utility Fleet study. The required 90 'dual missioning' aircraft will be FY01 funds are required for the procurement of aircraft, continuation of fielding, and to provide for PMO operations. The BLACK HAWK budget is predicated on firm FY99 Advance Procurement funding, FY99 production funds were used for long lead GFE (including engines) to support FY00/01 aircraft. This has the effect of fixed prices on the FY97-01 Airframe multiservice multiyear contract. A new multiservice multiyear contract is planned, with Economic Order Quantity funding commencing in FY 2001. Multiyear exhibits requesting multiyear authorization are being submitted in this budget request. FY 1999 funding (included in PM artificially reducing the unit price of these aircraft.

Exhibit P-5, Weapon Aircraft Cost Analysis		Appropriation/ AIRCRAFT	/ Budget Activ PROCUREM	Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft		P-1 Line Iter UH-60A (B	P-1 Line Item Nomenclature: UH-60A (BLACK HAWK) (MYP) (AA0005)	AYP) (AA0005)		Weapon System Type:		Date: Febru	February 2000
Aircraft	Q		FY 98			FY 99			FY 00			FY 01	
Cost Elements	8	TotalCost	_	UnitCost	TotalCost	Qŧy	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
AIRCRAFT Flyaway Costs		000\$	Each	000\$	000\$	Each	000\$	000\$	Each	\$000	000\$	Each	\$000
Airframes / CFE Fngines/Accessories					176276	29	6078	138950	19	7313	41328	ပ	6888
Avionics A OFF					2 2 2				)		7 90	)	
A. GTE Other GFE					8313 8313			1243			994		
Afritament ECO (All Flyaway Components)					ţ			1339			691		
Other Costs (Mission Kits) Subtotal Flyaway Costs Non-Recurring Costs					17 237996			167038			49628		
Tooling Equipment Other Nonrecurring Total Flyaway					16705 <b>254701</b>			167038			49628		
Support Cost Airframe PGSE Engine PGSE Peculiar Training Equipment Publications Tech / Data					4153	<del> </del>		4189			5344		
Engineering Change Orders PM Administration Fielding Subtotal Support Cost					29085 5081 <b>38319</b>			24614 3445 <b>32248</b>			22488 3745 <b>3157</b> 7		
Gross P-1 End Cost					293020			199286			81205	1 12 201 1	
Nets-1 Full Funding Cost Plus: P-1 CX Adv Proc Other Non D-1 Costs					269801			199286 16554			64651 22127		
Unitial Spares UH-60 Mods UH-60Q MEDEVAC					3481 22671	·		12962			3021	,	
TOTAL					295953			228802			89799		

Exhibit	Exhibit P-5a. Budget Procurement History and Planning	History a	nd Planning					Date: F	February 2000	00
Appropriation / Budget Activity/Serial No:		Weapon System Type:	em Type:		P-1 Line Item	P-1 Line Item Nomenclature:				
AIRCRAFT PROCUREMENT / 1 / Aircraft						UH-60A (	UH-60A (BLACK HAWK) (MYP) (AA0005)	YP) (AA00	05)	
WBS Cost Elements:	Contractor and Location	Contract Method	Location of PCO	Award Date	Date of First	ατγ	Unit Cost	Specs Avail	Date Revsn	RFP Issue Date
Fiscal Years		and Type			Delivery	Each	\$000	Now?	Avail	
Airframes / CFE					1					
FY99 (Aircraft/Production Engineering)	Sikorsky, Stratford CT	SSM/FP	AMCOM	Dec-98	Dec-98	5 73	6078	S S	2 2	
FTOO (AlicratyProduction Engineering)	Sikorsky, Stratford C1	SOM/FP	AMCOM	Mar-00	Lec-00	n €	1997	Se ×	2 2	
FY01 (Aircraft/Production Engineering)		SSM/FP		Dec-00	Jan-02	9 9	8889	8 ×	2 2	
Engines/Accessories		Č	NOON	0.00	00 401	4	COO	\$	2	
F1 33 (Engines/F10duction Engineering)	General Electric, Lynn MA	T /00	MOON	2000	Mar 00	<u> </u>	903	ß 8	2 2	
FY99 (Engines)		SS/FP	AMCOM	Apr-99	Jul-00	<del>1</del> <del>2</del> <del>2</del>	009	8 8	2 2	
FY99 (Engines)		SS/FP	АМСОМ	Mar-00	Jul-01	9	009	Yes	ž	
FY 00 (Engines/Production Engineering)		SS/FP	АМСОМ	Mar-00	Jul-01	28	620	Yes	Ŷ	
FY 01 (Engines/Production Engineering)	General Electric, Lynn MA	SS/FP	АМСОМ	Dec-00	Mar-02	9	899	Yes	ž	
REMARKS: NAME 2000 CHICAGO CONTRACTOR CONTRA	Bosonio 109 HH consocration	44 640		10000	1 44 440	100 4020	7000	1 54		
March 2000 award expected to be for seven of	) De IOI seveii U⊓-ou∟ aiiciaii	alia elle	JH-60L aircrait and trice FIH-60L INEDEVAC aircrait. Both the March 2000 and December 2000	ווכנמוו. ס	ını ınıcı	Tarcii zu	JU alia Dece	emper	7007	

March 2000 award expected to be for seven UH-60L aircraft and three HH-60L MEDEVAC aircraft. Both the March 2000 and December 2000 awards reflect the procurement of base contract aircraft as well as contract option aircraft.

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			FY99	4	29	0	59					_			7	ᅦ	$\dashv$	+	$\dashv$	φ		_	_	-	7	-	2	2	2	13	
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			FY02	4	6	0	6										$\dashv$	-	$\dashv$	_	_	4	_		$\perp$	4			7	6	_
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			FY04	∢	12	0	12					_				$\dashv$	$\dashv$	┥	+	_	4	$\dashv$	$\dashv$		4	_	$\perp$		1	12	
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	FY05		A 16	4	12	1	1 2	1	1	2 1	-	2						Ш									
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	FY	FY98 N	1 1	1								L						_									ı
	FY99	H		2			_									H	$\vdash$	_	_								1
	FY	N 00	17	17		$\vdash$											_	_					Г	-	-	_	
	FY	_	_	15			L		$\vdash$			L					_	<u> </u>	ļ				┪	$\vdash$	┝		
	FY02	02 N	_	16		$\vdash$			<u> </u>	_	_	L			_		_	L					_				
	FY	N E0		24														_							-		1
	FY		N 24	24																			<del></del>	$\vdash$	_		ı
	FY05			2	15	2	2 1	2	2	1 2	2	1															
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		PRODL	PRODUCTION RATES	S	Janovao	MFR				Ц	ΑĽ	ADMIN LEAD TIME	EAD T	IME	П	Ž	MFR	L	TOTAL		묎	REMARKS	ς, S				
NOTE COLVERNAN	Z Z		7.8.5	MAX	+ 0	Numbe		IAITIAI	t	+	Prior 1 Oct.	Ö i:	¥	After 1 Oct.	#	Affer	Affer 1 Oct.	+	Affer 1 Oct.	Ö.	Four are s	r aircra chedu	of proc	ured w be deli	/ith FY	Four aircraft procured with FY97 funding are scheduled to be delivered as UH-	
Y. Stratford, CT	18	<u>.</u>	09	96	_		Ä	REORDER	$\dagger$	╁	١			, e	十		٥	+	n   o	Τ	9	)HH-6	OL ME	DEVAC	aircr	60Q /HH-60L MEDEVAC aircraft at a of	
							Ξ	INITIAL	H	Н			Ц		H			H		П	one	per mo	inth sta	arting in	n Marc	one per month starting in March of CY	
	+	+					RE.	REORDER	T	+		ı		١	1	ŀ		4	ı		buy	awarde	d in the	e mon	th deliv	buy awarded in the month delivered (Dec	
		+					Ž	REORDER	$\dagger$	+					$\dagger$		ŀ	+			98	98). Navy aircraft are to be modified	aircraft	are to	Be a	98). Navy aircraft are to be modified to	
	H						Ξ	INITIAL	H	H			Ш		H	$\  \ $	H	H		П	show	une Cn-ou conliguration. Leaduimes shown assume provision of advance	rg em.	Jrauon. ovisior	. Leav	umes /ance	
	+	+					REC	REORDER	†	+			$oldsymbol{\perp}$		十	١		4	١	T	proc	procurement	ŧ				
				-			Ä	REORDER	t	+					t	ľ	Ì	╀									
									l			l	l	l	l	l	l	ı									

Airframes / CFE

					7			Date:				
		Exhibit P-40, Buaget I		tem Justification Sheet	ation Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	rial No:					P-1 Item Nomendature:	ıre:					
	AIRCRAFT PROC	AIRCRAFT PROCUREMENT / 1 / Aircraft	raft					UH-60 BLACKH	UH-60 BLACKHAWK (MYP) (ADV PROC) (AA0005)	ROC) (AA0005)		
Program Elements for Code B Items:	ms:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prod
Proc Qty												B
Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less PY Adv Proc												
Plus CY Adv Proc	2283.2	65.1	23.2	0.0	16.6	22.1	42.3	45.7	51.0	0.0		2549.3
Net Proc (P-1)	2283.2	65.1	23.2	0.0	16.6	22.1	42.3	45.7	51.0	0:0	0.0	2549.3
Initial Spares												:
Total Proc Cost	2283.2	65.1	23.2	0.0	16.6	22.1	42.3	45.7	51.0	0:0	0.0	2549.3
Flyaway U/C												
Wpn Sys Proc U/C												
DESCRIPTION:												

The Advance Procurement for the UH-60 BLACK HAWK contains funding for the airframe and engine contracts as well as for funding for Government Furnished Equipment (GFE) to support UH-60 aircraft and mission kit production. GFE includes such items as the Auxiliary Power Unit (APU), Hover Infrared Suppressor Subsystem (HIRSS), Crew Seats, and other miscellaneous equipment.

## JUSTIFICATION:

contract planned for FY 2002-FY 2006, with EOQ funding of long lead items commencing in FY 2001. In addition, advance procurement is required for the procurement of GFE items, including the T700-GE-701C engine, the Auxiliary Power Unit (APU), Crew Seats, and the Hover Infrared Suppressor Subsystem (HIRSS). The Prime Contractor has waived the requirement for Advance Procurement funding in FY99 only. Advance Procurement requested in FY98, FY00, and FY01 is for termination liability for aircraft on the FY97-01 multiservice multiyear contract and a new airframe

Advance Procurement Requirements Ana				!	-									
Announcement Audoot Activity/Social No.	nents	Analys	is-Fund	llysis-Funding (P-10A)	A)								February 2000	
אף ושווים אין ושחשבי שרישבי שלים וייט.							P-1 Line Item N	P-1 Line Item Nomendature / Weapon System:	'eapon System:					
AIRCR4	NET PROC	UREMENT	AIRCRAFT PROCUREMENT / 1 / Aircraft						UH-60 BLA	CKHAWK (MYI	UH-60 BLACKHAWK (MYP) (ADV PROC) (AA0005)	) (AA0005)		
								(\$ in Millions)	llions)					
	_	When												
	PLT (mos)	Rqd (mos)	Pr Yrs	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Сошр	Total
End Item Quantity:	<del> </del>		1,418	34	28	29	19	9	6	22	12	16		1,593
CEE Airframe	8	9	1406.8	40.0	12.3		12.0	10.8	26.6	31.0				1573.4
Engines	4	က	621.9	20.8	9.4		3.7	7.4	13.8	11.5	15.7			704.3
	Var	က	124.3											124.3
Auxiliary Power Unit	15	က	40.6	1.3	1.0		0.5	1.9	1.4		1.3			48.0
Armored Crew Seat	12	က	19.7	1.4					0.5	1.4				23.0
Hover Infrared Suppressor	4	က	28.1	0.8			0.4	2.0		1.9				33.1
Elastomeric Bearings	10	က	1.3	0.2	•									1.5
Other	Var	Var	40.5	9.0	0.5									41.6
4														
								,						
Total Advance Procurement			2283.2	65.1	23.2		16.6	22.1	42.3	45.7	51.0		,	2549.2
Docoriotion: Londing chom is monthly	4 3	dir.	i ito	1000	1 74/VL	1111000	יטין יטינויטין	1 600		i paitrota	on forced refined in the contract of the section of the delivers starting in 1-11/2 of 194 contract outside	24 00	10040	Ţ

Description:Leadtime shown is manufacturing (production) leadtime. 'When Required' reflects end item delivery starting in July, a Dec 31 contract award, and a three month dock time for GFE. CFE airframe is termination liability of long lead as well as economic order quantities. Engine, avionics, APU, crew seats HIRSS, and elastomeric bearings are items that are fully funded in advance. Other cost is for mission kits and contractor concurrent support of fully funded items. GFE Items funded in economic quantities when funding permits.

Advance Procurement Requirements Analysis-Budget Justification (P-10B)	irement	s Analysis-	Budget Jus	tification (P	-10B)			Date: February 2000	ry 2000
Proprietory Deaglet Activity/Serial NO:					P-1 Line Item Nomendature / Weapon System:	/ Weapon System:			
AIRCRAF	FT PROCURE	AIRCRAFT PROCUREMENT / 1 / Aircraft				UH-60 BLACKH	UH-60 BLACKHAWK (MYP) (ADV PROC) (AA0005)	'ROC) (AA0005)	
						(\$ in Millions)			
		Quantity			2000			2001	
	PLT (mos)	Per Assembly	Unit	Ą.	Contract Forecast Date	Total Cost Bonnoct	į	Contract	Total
UH-60L BLACK HAWK						oosi vednesi	SUS.	Forecast Date	Cost Request
Airframe Engine	18		2.000/1.196	9					·
Auxiliary Power Unit	15		029./029.	တ တ	Mar 00	3.7	12		
Hover Infrared Suppressor	14	~	.063/.064	9				Mar 01	1.9
Total Advance Procurement						16.6		-	22.1

(EOQ) items, and reflects the lack of any prior advance funding for the last year of a multiyear contract. FY2001 airframe funds are for termination liability of an anticipated new multiservice multiyear contract. Engine requirements are being procured on an existing Indefinite Delivery, Indefinite Quantity (IDIQ) contract with currently priced options on deliveries through CY2000-additional option prices are planned for negotiation. Use of FY98 and FY99 funding has reduced the Advance Procurement requirement for engines. EOQ buys in FY99 impact the quantities required for the APU, Crew Description: Airframe cost in FY2000 is for termination liability on the current multiyear contract for both long lead (LLT) and Economic Order Quantity Seat, and Hover Suppressor.

Advance Procurement Requirements Ar	irements A	nalysis-Pr	alysis-Present Value Analysis (P-10C)	ıe Analysiધ	s (P-10C)					Date:	February 2000	
Appropriation / Budget Activity/Serial No:					P-1 Line Item Nomenclature / Weapon System:	nenclature / Weap	on System:					
AIRCRAFT	AIRCRAFT PROCUREMENT / 1 / Aircraft	F / 1 / Aircraft					18 09-HN	UH-60 BLACKHAWK (MYP) (ADV PROC) (AA0005)	(ADV PROC)	4A0005)		
						(\$ in Millions)	llions)					
	Pr Yrs	1997	1998	1999	2000	2001	2002	2003	2004	2005	То Сотр	Total
Proposal w/o AP Then Year Cost Constant Year Cost Present Value		37 39 38	137 143 137	253 260 244	282 286 286	205 205 182	138 136 117	167 161 136	192 182 149	194 181 144	204 184 142	1809 1777 1550
AP Proposal Then Year Cost Constant Year Cost Present Value		37 39 38	134 139 134	244 251 235	269 273 249	195 195 173	132 130 113	161 156 131	185 176 144	188 174 139	198 178 137	1743 1711 1493
AP Savings (Difference) Then Year Cost Constant Year Cost Present Value			6 4 б	6, 6, 6,	-13 -13	-10 -10 -9	о́ о́ 4	ထ် လံ လံ	7- 6- 5-	-6 -7 -5	φφφ	-66 -66 -57
											3-30-0	
Remarks: Costs shown are total program outlays. The AP proposal represents the cost associated with the FY97-01 airframe multiyear contract are anticipated multiyear contract commencing in FY 2001. Proposal without AP is the estimated cost for airframe single year contracts from FY 1997 through FY 2005.	otal program commenci	n outlays. Ting in FY 20	The AP pro 301. Propα	posal repre	esents the	cost assoc estimated	iated with t cost for air	the FY97-0 frame sing	11 airframe Ie year coi	The AP proposal represents the cost associated with the FY97-01 airframe multiyear contract and an 001. Proposal without AP is the estimated cost for airframe single year contracts from FY 1997.	contract ar n FY 1997	ıd an

Advance Procurement Requirements Analysis-Execution (P-100)	nireme	nts Ana	lveis-Fx6	Scution (F	.400)								Date:	February 2000	
Appropriation / Budget Activity/Serial No:			7 212 E				P-1 Line Iten	P-1 Line Item Nomendature / Weapon System:	/ Weapon Syste	Ë					
	URCRAFT PI	ROCUREME	AIRCRAFT PROCUREMENT / 1 / Aircraft						OH.	30 BLACKHAW	UH-60 BLACKHAWK (MYP) (ADV PROC) (AA0005)	PROC) (AA00	005)		
								(\$ in M	(\$ in Millions)						
				1998					1999			21	2000	2(	2001
			Contract	L	Total	Actual		Contract	Actual	Total	Actual		Contract		Contract
	PLT (mos)	Q.	Forecast Date	Contract	Cost Request	Contract	ĝ	Forecast Date	Contract	Cost Request	Contract Cost	Ş	Forecast Date	ğ	Forecast Date
UH-60L BLACK HAWK		<u> </u>													
Airframe	18		Dec 97	Dec 97	12.3							9		0	Dec 00
Engine	41	12				9.4						9	Mar 00		Dec 00
Auxiliary Power Unit	15											9			Mar 01
Crew Seats	12	24			0.5										
Hover Suppresspr	14				8.0							9	Mar 00	31	Mar 01
Elastomeric Bearings	10				0.2										
Avionics	Var	71	Various	00	. c	ı.									
Total Advance Procurement					25.0	23.2									

Description:Source of estimated dollars and award dates for FY 1998 is the FY98 President's Budget. Engine quantity procured was four greater than had been projected. Avionics and Elastomeric Bearings are now being requisitioned from the supply system. Other cost is planned for procurement out of the Buy line. Lack of advance procurement in FY99 reflects the plan (since reversed) to discontinue after the FY99 buy. Advance procuremment for the airframe is for termination liability. Airframe quantity in FY01 is for the total FY02-06 Army requirement (MYC).

Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)	ent Requi	irements	Analysis	-Obligati	ons/Expε	anditures:	; (P-10E)						Date:	February 2000	
Appropriation / Budget Activity/Serial No:	ial No:							P-1 Line Item Nomenclature / Weapon System:	omenclature / W	eapon System:					
- 1.2		AIRCRAFT PR	AIRCRAFT PROCUREMENT / 1 / Aircraft	1 / Aircraft						UH-60 BL/	CKHAWK (MYI	UH-60 BLACKHAWK (MYP) (ADV PROC) (AA0005)	(AA0005)		
						\$)	(\$ in Millions)								
							FY 98	98						Total	Ending
	Total		1997						1998					Obl/Exp	Balance
	Program	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	(Cum)	(Cnm)
FY 98 Obi Plan Actual	24.4 23.2			23.5	īτĊ		o;	1.0						24.4	
Exp Plan Actual															
<b>FY 99</b> Obl Plan Actual															
Exp Plan Actual															
<b>FY 00</b> Obi Plan	16.6														16.6
FY 01 Obi Plan	22.1														22.1
Narrative: Expenditure plans are not utilized.	ture plans	are not ul	tilized.												

Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)	ment Reg	irements	Analysis	s-Obligati	ions/Exp	enditures	s (P-10E)						Date:	February 2000	
Appropriation / Budget Activity/9	Serial No.							P-1 Line Item N	P-1 Line Item Nomenclature / Weapon System	Veapon System:					
Appropriation / Booget Activity	Selial NO.	AIDCDAET DO	AIDCOAET DOOCHDEMENT / 1 / Aircraft	1 / Aircraft					A / Simple control of the control of	reapon System.	CKHAWK	OLI SPSIEILI. HII-SO BI ACKHAWK (MYP) (ARV PROC) (AAMOS)	(440005)		
		200				\$)	(\$ in Millions)					(2011)	(00000)		
							EV 99	8						Total	Ending
	Starting		1998					3	1999					Ohl/Exn	
	Balance	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	(Cum)	_
FY 98 Obl Plan Actual Exp Plan Actual															
Obi Plan Actual Exp Plan Actual															120000000
FY 00 Obi Plan	16.6														16.6
<b>FY 01</b> Obl Plan	22.1														22.1
Narrative:															

Appropriation / Budget Activity/Sental No:  AIRCRAFT PROCUREMENT / 1 / Aircraft  (\$ in Millions)  FY	ent Redu	irements	Analysis	-Obligat	ions/exp(	enditures	(P-10E)							February 2000	
	al No:							P-1 Line Item N	P-1 Line Item Nomenclature / Weapon System:	Veapon System:					
		AIRCRAFT PROCUREMENT / 1 / Aircraft	OCUREMENT /	1 / Aircraft						UH-60 BL/	CKHAWK (MY	UH-60 BLACKHAWK (MYP) (ADV PROC) (AA0005)	) (AA0005)		
						\$)	(\$ in Millions)								
							FY 00	00						Total	Ending
	Starting		1999						2000					Obl/Exp	Balance
	Balance	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	Įnς	Aug	Sep	(Cum)	(Cum)
FY 98 Obl Plan Actual															
Exp Plan Actual															
FY 99 Obl Plan Actual															
Exp Plan Actual															
FY 00 Obi Plan	16.6					12.0	4.6							16.6	
FY 01 Obl Plan	22.1														22.1
Narrative:															
		:													

Autoropietory Laby Market No.   Autoroperation   Autoro	Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)	nent Req	uirements	Analysis	s-Obligati	ons/Exp	enditures			:				Date:	February 2000	
Starting   Starting	Appropriation / Budget Activity/S	erial No:						_	P-1 Line Item N	formenclature / V	Veapon System:					
Starting   Starting   Cot			AIRCRAFT PR	OCUREMENT /	'1/Aircraft						VH-60 BL	CKHAWK (MY	P) (ADV PROC)	) (AA0005)		
Fy 98 Fy 99							\$)	in Millions)								
Starting   Starting   2000   Starting   2001								FΥ	01						Total	Ending
FY 98		Starting		2000						2001					Obl/Exp	Balance
FY 99 FY 99 FY 99 FY 96		Balance	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	(Cum)	(Cum)
FY 99  FY 00  FY 00  FY 01  FY 01  FY 01  FY 03  FY 04  FY 04  FY 04  FY 05  FY	FY 98 Obl Plan Actual															
FY 99 -Y 00 -Y 01	Exp Plan Actual															
-Y 00 -Y 01 22.1 18.2 -Fe:	FY 99 Obl Plan Actual				******										•	
FY 00 FY 01 22.1 18.2 Ve:	Exp Plan Actual															
FY 01 22.1 18.2	FY 00 Obi Plan															
Narrative:	FY 01 Obl Plan	22.1			18.2			3.9							22.1	
	Narrative:															
	va															

								Date:				
		Exhibit P-40, Budget		tem Justific	Item Justification Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	al No:					P-1 Item Nomenclature:	re:					
AIRC	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	ENT / 2 / Modification	ι of Aircraft					GUARDF	GUARDRAIL MODS (TIARA) (AZ2000)	(AZ2000)		
Program Elements for Code B Items:	is:			Code:	Other Related Program Elements:	am Elements:					!	
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	EV 2004	EV 2005	To Complete	Total Drag
Proc Qty									1007	2007	a collibrate	- Olai riog
Gross Cost	559.4	0.0	14.3	43.5	18.7	22.6	28.1	33.7	29.9	13.7	0.0	764.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	559.4		14.3	43.5	18.7	22.6	28.1	33.7	29.9	13.7	0.0	764.0
Initial Spares	0.4	5.7	3.2	1.8	5.8			5.8				22.7
Total Proc Cost	559.8	5.7	17.6	45.3	24.5	22.6	28.1	39.5	29.9	13.7	0.0	786.8
Flyaway U/C												
Wpn Sys Proc U/C												

Joint Tactical Terminal (JTT) and other DoD tactical and fixed communications systems. The Army's GUARDRAIL /Common Sensor System (GRCS) will have a highly DESCRIPTION: Guardrail is an Airborne signal intercept and emitter location system designed to provide tactical commanders with critical battlefield information via a flexible architecture to allow rapid deployment to support contingency operations.

location into a single signal intelligence (SIGINT) system. The airborne elements are integrated into the RC-12K/N/P/Q aircraft. Ground processing is conducted in the Integrated Processing Facility (IPF). Key performance requirements include a real-time COMINT and ELINT collection and high accuracy target location capability in communications and radar frequencies. The Interoperable Data Link (IDL)/Multi-Role Data Link (MRDL) connects the airborne elements and the ground processing (CHAALS/CHALS-X) for COMINT and precision emitter location, and the Advanced QUICKLOOK (AQL) for electronics intelligence (ELINT) and precision emitter The GRCS integrates the Improved GUARDRAIL V for communications intelligence (COMINT), the Communications High Accuracy Airborne Location System element. A satellite remote relay will provide rapid deployment capability. JUSTIFICATION: FY01 funds procure a HMMWV based Minaturized -Integrated Processing Facility (Mini-IPF) to replace the existing GRCS System 4 trailer based IPF.

							Date				
	Exhibit P-40M Budget		Item Justification Sheet	ation Sheet					February 2000		
Appropriation / Budget Activity/Serial No.				<u> </u>	P-1 Item Nomenclature	8					
AIRCRAFT PROCUR	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	of Aircraft					GUARDRA	GUARDRAIL MODS (TIARA) (AZ2000)	AZ2000)		
Program Elemenis for Code B Items			Code	Other Related Program Elements	n Elements						
Description		Fiscal Years									
OSIP NO. Classification	ation	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
System 2 Block Upgrade											
1-96-666-6666 Operational	nal	198.8	40.7	18.7	0.0	0.0	0.0	0.0	0.0	0.0	258.2
TIBS and TRIXS for GRCS											
1-96-777-777 Operational	nal	27.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.1
Mini-IPF											
1-00-111-1111 Operational	آھر	0.0	0.0	0.0	22.6	18.2	3.7	3.7	0.0	0.0	48.2
ELINT Pod Replacement (No P3a Set)	3a Set)										
1-01-111-1111 Operational	nal	0.0	0.0	0.0	0.0	6.6	10.3	15.4	3.6	0.0	39.2
SIGINT Transistion Program (STP) (No P3a Set)	STP) (No P3a S	et)									<del> </del>
01-03-111-1111 Operational	nal	0.0	0.0	0.0	0.0	0.0	14.0	8.8	0.6	0.0	31.8
Joint Tactical Terminal (JTT) Integration (No P3a Set)	ntegration (No P	3a Set)									
1-03-222-222 Operational	nal	0.0	0.0	0.0	0.0	0.0	5.7	2.0	0.0	0.0	7.7
Sygate Integration (No P3a Set)	t)										
1-04-111-1111 Operational	nal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	1.1
System 4 Remote Relay											
1-99-111-1111 Operational	nal	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
Totals		225.9	43.7	18.7	22.6	28.1	33.7	29.9	13.7	0.0	416.3
				***************************************					***************************************	***************************************	

		DIVIDNI	INDIVIDUAL MODIFICATION	FICATI	NO						Date		Fet	February 2000	
MODIFICATION TITLE: System 2	System 2 Block Upgrade	rade 1-96-666-6666	99											į	
MODELS OF SYSTEMS AFFECTED: GUARDRAIL/Common Sensor System to RC-12 P/Q	GUARDRAIL/Com	non Sensor Syst	em to RC-	12 P/Q											
DESCRIPTION / JUSTIFICATION:															
The GUARDRAIL/Common Sensor System Block Upgrade is a modification to the System 2 Production Contract. It provides the required outyear efforts in support of the basic GR/CS System 2 program and major ECPs to include Advanced Tactical SIGINT Architecture (ATSA),	Sensor System the basic GR/C	Block Upgra S System 2 p	de is a r	odific and rr	ation t ajor E	o the S CPs to	system includ	2 Pro le Adv	duction	n Cont Tactic	ract. I	provide INT Arc	es the hitectu	require re (AT\$	d SA),
Advanced Situations Analysis and Reporting Tools (ASART) and Direct Air to Satellite Relay (DASR). The ECPs were awarded with prior year funds and included installation costs. These funds are the annualized costs required to support these efforts. These annualized costs	is and Reporting tallation costs. T	Tools (ASA) nese funds a	RT) and re the ar	Direct	Air to	Satell sts req	te Rela uired ta	ay (DA o supp	SR). ort the	The E	CPs worts. The	ere awa iese ani	ırded v ∩ualize	vith pric ed costs	L
include contractor and government engineering, interim contractor support, training, testing, fielding, and program management. There are no hardware quantity procurements planned.	rnment engineer rents planned.	ing, interim c	ontracto	r supl	oort, tr	aining,	testing	j, field	ing, ar	ld prog	ram rr	anagen	nent. T	here aı	e 110
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	DEVELOPMENT MII	ESTONES:										:			
	Plar	Planned	•	Accon	Accomplished	ğ									
IPF Upgrade Award;	<del>-</del>	1QFY93		<u>Q</u>	1QFY93										
DASR Contract Awards;	Ž,	2QFY94		4 6	4QFY94										
ASAK I Contract Award; System Fielding;	2,4	4QF		4 3	4 CT 7 94										
Field Testing	3(	3QFY00													
Installation Schedule:	EV 4000		2000			EV 2001	5	-		EV 2002	2	-		EV 2003	
Totals	1 2 3	4	2 3	4	1	2	3	4	1	2	3	4	-		3 4
Inputs Outputs															
	NO04	EV 2005			À	EV 2006			FY 2007	2	-		<u>ا</u>		Totals
	2 3 4	1 2	3 4		2	3	4	1	2   2	3	4	Complete	ite .		2000
Inputs															
Outputs					]			1					_ \$		
METHOD OF IMPLEMENTATION:	7	ADMINISTRATIVE LEADTIME:	AIIVE LE	<u> </u>	;;		Z/A		YOU'S	PRODUCTION LEADTIME:	EADI	ш	Ž		
Contract Dates: Delivery Date:	FY 1999 FY 1999		FY 2000 FY 2000					L <u>u</u>	FY 2001						

				MDIVIDI	JAL MOD	INDIVIDUAL MODIFICATION	_					Date	Feb	February 2000	
MODIFICATION TITLE (Cont):	Sy	stem 2 Bl	ock U	System 2 Block Upgrade 1-96-666-6666	-999-96	9999									
FINANCIAL PLAN: (\$ in Millions)	FV 1998														
	and Prior	FY 1999	-	FY 2000	FY	FY 2001	FY 2002	200	FY 2003	FY 2004	FY 2	FY 2005	2	H	TOTAL
	Qty \$	Qty :	\$	Qty \$	Qfy	ક	Q Çţ	8	Qty \$	Cty \$	O Q	€	Qty \$	Qt	49
RDT&E											*****				
PROCUREMENT							,,,,,,,							_	
Kit Quantity							*********						(***********************************		
Installation Kits							***********								
Installation Kits, Nonrecurring			-										Th. 2 Accessed a 1911		
Equipment	99.1		14.8												113.9
Equipment, Nonrecurring	46.5			****			**********		0.000 At 1 ***	***************************************			*****		46.5
Engineering Change Orders	2.5	**********										-			2.5
GFE/Aircraft Support	10.5		3.2	4	4.0		,,,,,,,,,,								17.7
Training/Fielding	1.2		6.9		3.6	***********									11.7
Support Equipment	1.9		1.8		1.8										5.5
Other	3.6	•••••													ю́
Interim Contractor Support	1.0		4.1	4	4.2										<u>ග</u> ්
Testing	7.0		4.1										pinghinadad		<u>†</u>
Gov In House/Prg Mgmt ADM	11.5	,,	2.3	2	2.3										16.1
Contractor Engineering	14.0		3.5	~	ω.					***************************************					20.3
Installation of Hardware									·· <del>-</del> ·····						
FY 1998 & Prior Eqpt Kits															
FY 1999 Eqpt Kits	*******						************		•••						
FY 2000 Eqpt Kits							••••								
FY 2001 Eqpt Kits	••••						•••••								
FY 2002 Eqpt kits	*******														
FY 2003 Eqpt kits									en manere n						
FY 2004 Eqpt kits	************					,									
FY 2005 Eqpt kits							***************************************								
TC Equip-Kits			7											+	
Total Installment			-	;										+	o L
Total Procurement Cost	198.8		40.7	18.7	.7										258.2

					INDIVIDUAL MODIFICATION	IVIDUA	T MOD	FICATI	NO						Ď	Date		February 2000	2000	
MODIFICATION TITLE:	TIBS and TRIXS for	d TRI)	(S for (	3RCS	GRCS 1-96-777-7777	77-77	77													
MODELS OF SYSTEMS AFFECTED: Guardrail Common Sensor Systems 1, 3 & 4	S AFFECTED	): Guard	rail Com	mon Sei	nsor Sys	tems 1,	3&4													
DESCRIPTION / JUSTIFICATION:	FICATION:																			
This modification provides a Tactical Information Broadcast Service (TIBS) capability for GR/CS Systems 1, 3 and 4. It provides Tactical Reconnaissance Intelligence Exchange System (TRIXS) capability for all GR/CS systems. TIBS will be integrated into the 3 IPFs allowing the IPFs to become TIBS producers. The TRIXS capability will allow broadcast and receive on both the collateral and SI networks for GRCS.	provides a Intelligence	a Tacti se Exch	cal Infc tange \$	ormatic Systen SIXS o	on Bro n (TRĽ	adcas XS) ca itv will	t Servi pabilit	ice (TI y for a	BS) call GR/4	ipabilii SS sys	ty for (stems.	GR/CS TIBS	Syst will t	ems 1, se integ ollatera	3 and grated	4. It prints the	rovide 3 IPF	s Tac s allo	tical wing th	the
Systems 1, 3, and 4. The TRIXS capability will be accomplished by using CECOM 's Intelligence and Information Warfare Directorate (I2WD) as the system integrator. The hardware will be integrated into a shelterized HMMWV which will then be fielded to the existing GRCS	d 4. The T egrator. T	RIXS of	dware	ity will will be	be ac	compli ated in	shed I	oy usir shelter	ng CE( ized H	NOM .	s Intel	ligenc ch will	e and then I	Information of the fields	ation V ed to t	Varfare he exis	Direction of the Grant G	torate RCS	(I2WE	<u>o</u>
0) viei II v																				
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	US / MAJOR	DEVEL(	DPMENT	MILES	TONES															
TIBS Contract Award:	ard.	Plan	Planned 30FY96	Acco 40	Accomplished	ped	F	RS Pr	TIBS Preliminary Acceptance.	ייט אַכּי	- Pentar	<u>.</u> و	Planr	Planned Accomplished	compl	omplished				
TRIXS Contract Award:	ward:	, % <del>,</del>	2QFY98	;	2QFY98		∶≓⊦	RIXS I	TRIXS Preliminary Acceptance:	nary A	ccept	ance:	) - , ~	2QFY99		4QFY99				
TRIXS System Req't Review: TIBS/TRIXS Qtr Reviews:	eq't Review Reviews:	•	2QFY98 Quarterly	- · · · · · · · · · · · · · · · · · · ·	2QFY98	œ		RIXS	TRIXS Final Acceptance Test:	Accept	ance	Test:	ı	4QFY00	, <u>o</u>					
Installation Schedule:																				
	Pr Yr	占	FY 1999	$\prod$		FY 2000	000	П		FY 2001	101			FY 2002	02			FY 2003	83	
	Totals	1 2	3	4	1	2	3	4	-	2	8	4	7	2	3	4	7	2	ဧ	4
Outputs	o				2	2	_	~												
	<u>~</u>	FY 2004			FY 2005	902			FY 2006	900			FY 2007	200			To		은	Totals
Inputs Outputs	-	2	4	-	2	e e	4	_	7	m	4	-	2	ю	4	Com	Complete		:	9 9
METHOD OF IMPLEMENTATION:	ENTATION:				ADMIN	STRAT	IVE LE	ADMINISTRATIVE LEADTIME:		1	A'N	1	RODL	PRODUCTION LEADTIME:	EADTIN	ΛĒ:	]¥N	   		
Contract Dates:		FY 1999	66 0				FY 2000	0.1					FY 2001	_						
Delivery Date.							L 200(						7 200							1

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			'NDINIDN'	INDIVIDUAL MODIFICATION	NC				D	Date		February 2000	000	
MODIFICATION TITLE (Cont):	II.	TIBS and TRI)	XS for GRCS 1-96-777-7777	1-96-777-36-1									*	
FINANCIAL PLAN: (\$ in Millions)														
	FY 1998	FY 1999	FY 2000	FY 2001	EY 2002	FY 2003	-	FY 2004	FY 20	2005	J.	-	TOTAL	
	Oty \$	Oty \$	Oty \$	Qty \$	Oty \$	ą	o	€		69	1	\$	ξ	69
RDT&E														
PROCUREMENT													*******	
Kit Quantity														
Installation Kits	3 2.8				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,								က	2.8
Installation Kits, Nonrecurring	1.3													1.3
Equipment	3 5.9												က	5.9
Equipment, Nonrecurring	12.4					*******					***************************************			12.4
Engineering Change Orders														
Data	1.6							,,,,,,,,,	******		**********			1.6
Training Equipment											********			
Support Equipment													***********	
Other	1.0										.,		141111111111111111111111111111111111111	1.0
Interim Contractor Support								******	******		**********			
Installation of Hardware											******			
FY 1998 & Prior Eqpt Kits	6 2.1												9	2.1
FY 1999 Eqpt Kits											***************************************			
FY 2000 Eqpt Kits														
FY 2001 Eqpt Kits											••••••			
FY 2002 Eqpt kits														
FY 2003 Eqpt kits													********	
FY 2004 Eqpt kits													********	
FY 2005 Eqpt kits											••••••		••••••	
TC Equip-Kits														
Total Installment	6 2.1	*********											9	2.1
Total Procurement Cost	27.1						_							27.1

		น เพเมา-เคา. ครบร สกุ	willing it is a located to find the first of the field, and test both IPFs.	willing it is and FT04 funds will be used to field, and test both IPFs.	
)EVELOPMENT STATUS	DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONIES	MI ECTONICS.			
Mini-IPF #1 Contract(s) Award Integration CONUS Test Field & OCONUS Test	Planned 1QFY01 3QFY01 4QFY02 est 2QFY03	Accomplished	Mini-IPF #2 Contract(s) Award Integration CONUS Test Field & OCONUS Test	Planned Accomplished 1QFY02 3QFY02 4QFY03 2QFY04	
nstallation Schedule:					
Pr Yr Totals	FY 1999		<u>[</u>	FY 2002 F	FY 2003
nputs outputs	7	4 1 2	3 4 1 2 3	4 1 2 3 4 4 1	2 3 4
	FY 2004	FY 2005	SOUC AS		
puts	1 2 3 4	1 2 3	4 2 3 4	1 2 3 4 Complete	Totals
ETHOD OF IMPLEMENTATION:	ATION:	ADMINISTRACTIVE	-		
ontract Dates: elivery Date:	FY 1999 FY 1999	FY 2000	EAU IIME: 1 Months 000 000	PRODUCTION LEADTIME: 22 Months FY 2001 Nov 00 FY 2001 Sep 02	

Outputs

Inputs

Outputs

Inputs

Contract Dates: Delivery Date:

MODELS OF SYSTEMS AFFECTED: GUARDRAIL/Common Sensor System 3 & 4

DESCRIPTION / JUSTIFICATION:

Mini-IPF 1-00-111-1111

MODIFICATION TITLE:

			MDIVIDUA	INDIVIDUAL MODIFICATION	z				Date	Febr	February 2000	
MODIFICATION TITLE (Cont):	Mi	Mini-IPF 1-00-1	111-1111									
FINANCIAL PLAN: (\$ in Millions)	FY 1998											
	and Prior	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	03	FY 2004	FY 2005	TC	TOTAL	ږ
	Qty \$	Oty \$	Oty \$	Qty \$	Qty \$	δţ	<i></i>	Qty \$	Qty \$	Qty \$	Qty	<del>ss</del>
RDT&E					***************************************							
PROCUREMENT								******				
Kit Quantity	*******			<b>************</b>								
Installation Kits					nat tradery							
Installation Kits, Nonrecurring						******						
Equipment	••••			1 7.6	1 8.8	<u> </u>					7	16.4
Engineering, Nonrecurring				8.3	2			***************************************				11.2
Engineering Change Orders	.,,,,			0.4	o'	4						0.8
Data/Documentation				0.5	0.3	<u>е</u>						0.8
Training	•••••			0.4	0.4	4						9.0
Support Equipment/GFE				0.8	0.8	8	0.2	0.2	01			2.0
Other/Satellite Support				0.4	0.4	4	0.2	6	01			1.2
Interim Contractor Support						***************************************	0.4	0.4				9.0
Gov't In-House/Pgm Mgmt				1.3	<del>-</del>	1.3	0.5	ö	20			3.6
Contractor Engineering				0.7	0.7	7	0.3	ö				2.0
Fielding	••••	*********						***********				
Testing	.,,,,,,		****	0.5	0.5	2	0.3	0.3		•••••		1.6
Shelter Facilitization/Mod				1.7	<del>-</del>	2						3.4
netallation of Hardware												
TV 4000 & Driot Fant Vite		*****										
TV 4000 T == 1015	bb-b											
SIZ - Idbi - Li												
FY 2000 Eqpt – Kits	*******											
FY 2001 Eqpt Kits	••••••					_	8.				_	1.8
FY 2002 Eqpt kits	********							1 1.8	<u> </u>		_	1.8
FY 2003 Eqpt – kits	*******											
FY 2004 Eqpt kits								**********				
FY 2005 Eqpt kits			************									
TC Equip-Kits												
Total Installment						-	1.8	1 1.8	8		2	3.6
Total Procurement Cost				22.6	18.2	2	3.7	3.7				48.2

			<u>Z</u>	INDIVIDUAL MODIFICATION	AL MO	DIFICA	LION							Ď	Date		February 2000	y 2000	
MODIFICATION TITLE: System 4	System 4 Remote Relay 1-99-111-1111	elay 1	-99-11	1-111	1														
MODELS OF SYSTEMS AFFECTED: Guardrail Common Sensor System 4	Guardrail Co	nomu	ensor Sy	stem 4															
DESCRIPTION / JUSTIFICATION:																			
This modification provides for the purchase of a new satellite terminal to replace the existing Crazy Horse Satellite Terminal (provided in the short term modification, 1-99-222-2222, FY99), and other hardware to provide a mid-term Remote Relay (RR) capability to GUARDRAIL	r the purch -222-222	ase of FY99	a nev ), and	/ satel other	lite ter hardw	rminal are to	to re	place ide a	the e mid-t	xisting erm R	) Craz emote	y Hor Rela	se Sa y (RR	tellite (caps	Termi ability	ase of a new satellite terminal to replace the existing Crazy Horse Satellite Terminal (provided in FY99), and other hardware to provide a mid-term Remote Relay (RR) capability to GUARDRAIL	rovide ARDF	din tr XAIL	<u>ə</u>
Common Sensor (GRCS) System 4. Efforts include purchase, test and integration of a minimum capability Transportable Medium Earth Terminal (TMET) Commercial Moderns and other associated hardware at a CONLIS site. This will allow access to some satellites providing	stem 4. E	forts i	nclude	purch	lase, 1	test ar	nd inte	gratic	on of	a mini	mum His w	capat	v acc	ransp	ortable	e Med	ium E	arth rovidir	Ę
coverage of the operational area for System 4. Hardware will be fielded to the OCONUS site, replacing the Crazy Horse hardware, and	rea for Sy	stem 4	. Har	dware	will b	e field	ed to	the O	NOS	JS sit	e, rep	acing	the	razy	Horse	hardw	/are, a	pui	פ
integrated with GRCS System 4, and tested to provide the local terminal Remote Relay capability to System 4. (the use of TMET supports the MINI-IPF effort in the long-term).	n 4, and te g-term).	sted to	o provi	de the	local	termi	nal Re	emote	Rela	y cap	ability	to Sy	stem ,	4. Ē	e nse	of TM	ET su	pports	"
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	EVELOPME	T MILE	STONE	ij															
Plar	Planned	ď	Accomplished	lished															
Contract Award: 20	2Q00																		
	1001																		
Integration and Test: 1 Final Acceptance: 1	1001 1001																		
														į					
Installation Schedule:	FY 2000		_	<u>}</u>	FY 2001	!	-		FY 2002		_		FY 2003	03			FY 2004	900	
Totals	2	3	4		2	3	4	-	7	3	4	F	2	8	4	-	2	6	
Inputs Outputs																			
		-					֓֡֜֜֜֜֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓			-		2		-		F	į		1
FY 2005	- 1	1	֧֝֟֝֝֝֟֝֝֝֝֝֝֟֝֝֝֝֝֟֝֝֝֝֝ ֖֡֡֡֞֞֞֞֡֡֡֡	900	Ļ	4	<u> </u>	-Y 200/	-	+	ŀ	FY 2008	- 1	T	Ċ	0 1			orais
2	33	4	_	7	20	4	-	7	77	4	-	7	7	4	5	Complete			
Inputs Outputs																			
METHOD OF IMPLEMENTATION:			ADMI	ADMINISTRATIVE LEADTIME:	TIVEL	EADTII	ME:	9		Months	ď	Sobuc	PRODUCTION LEADTIME:	EADTI	ME:	8	Months		
S:	FY 2000	Feb 00	0		FY 2000	00					Œ	FY 2001							
Delivery Date:	FY 2000	Oct 00	0		FY 2000	00					٦	FY 2001				ĺ			

			NDIVIDU	INDIVIDUAL MODIFICATION	NO			Date	Febru	February 2000	
MODIFICATION TITLE (Cont):	Ś	stem 4 Rem	System 4 Remote Relay 1-99-111-1111	9-111-1111							
FINANCIAL PLAN: (\$ in Millions)	FV 1998	_					,				
	and Prior	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	TOTAL	
	Qty \$	Qty \$	Qty \$	Qty \$	Qty \$	Qty \$	Qty \$	Qty \$	Qty \$	Άρ	s)
RDT&E PROCUREMENT											
Kit Quantity				and a second second							
Installation Kits				ner er sære kast -							
Installation Kits, Nonrecurring		1 2.1								_	2.1
Equipment										***************************************	
Equipment, Nonrecurring						. / / / / / / / / / / / / / / / / / / /				•••••	
Engineering Change Orders		0.2	2								0.2
Data											
Training Equipment		******				***************************************					
Support Equipment		2,,-10,1000			•••••				************	***************************************	
Other		*********	-		**********	***************************************					
Interim Contractor Support						,			,.,		
Government In House/Pam Mgmt		0.3									0.3
Contractor Engineering		0.3	8								0.3
								**************************************			
Installation of Hardware											
FY 1998 & Prior Eqpt Kits			•••••								
FY 1999 Eqpt Kits		1 0.1								_	0.1
FY 2000 Eqpt Kits			*******								
FY 2001 Eapt Kits			***** ****								
FY 2002 Eapt kits			741141111								
FY 2003 Egut kits											
EV 2004 Eapt kits											
2000 VI											
FY ZUUD Eqpt Kits			*******				•••••				
TC Equip-Kits											
Total Installment		1 0.1								-	0.1
Total Procurement Cost		3.0	0							1	3.0

		Exhibit P-40, Budget	0, Budget It	em Justifica	Item Justification Sheet			Date:		February 2000		
Appropriation / Budget Activity/Serial No:	al No:		:			P-1 Item Nomenclature:	re:					
AIR	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	ENT / 2 / Modification	of Aircraft					*	ARL MODS (AZ2050)			
Program Elements for Code B Items:	:2:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	EV 2000	EV 2001	EV 2002	EV 2003	EV 2004	EV 2005	To Complete	Total Drog
Proc Qty						202	7007 1 1	2007	1007	2007	o complete	l dial r log
Gross Cost	0.0	0.0	0.0	0.0	5.8	6.6	2.4	29.1	20.9	15.8	0:0	80.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0:0	0:0	0.0	0.0	5.8	9.9	2.4	29.1	20.9	15.8	0.0	9.08
Initial Spares												
Total Proc Cost	0.0	0:0	0.0	0.0	5.8	9.9	2.4	29.1	20.9	15.8	0.0	80.6
Flyaway U/C	·											
Wpn Sys Proc U/C												

Joint Task Force (JTF) Commanders. ARL is a multi-echelon level, multi-INT (combined SIGINT and IMINT) system, designed for forward deployment/force projection in Moving Target Indicator (MTI) and Synthetic Aperture Radar (SAR). ARL provides near real-time tactical airborne SIGINT and near real time IMINT collection support to SOUTHCOM Statements of Need (SON). The merger of these programs minimizes the acquisition and operational costs, increases availability, and optimizes flexibility resulting from the integration of the electro-optic and Radio Frequency (RF) sensors into a unified system. The primary sensors will be a Signal Intelligence (SIGINT) DESCRIPTION: The Airborne Reconnaissance Low (ARL) has evolved from two complementary tactical airborne systems ARL-I (Imagery Intelligence (IMINT)), an intercept and location. The ARL program integrates the capabilities of ARL-I and ARL-C into a single system which satisfies the requirements identified by validated government agencies such as DEA and FEMA. ARL is currently providing an indications and warnings capability to U.S. Armed Forces in Korea. A November 1995 with precision Direction Finding (DF) capability, IMINT electro-optics for target identification, and classification and multimode capability including wide area search deployable to support contingency operations, and is the airborne Reconnaissance Surveillance Target Acquisition (RSTA) platform of choice for various non-DOD elecro-optic reconnaissance and surveillance system, and ARL-C (communications intelligence (COMINT)), system which provides real-time highly accurate radio Operations Other Than War (OOTW) to mid intensity conflict environments. ARL also conducts daily JCS Sensitive Reconnaissance Operations, is rapidly self-Department of the Army (DA) Directed Requirement validated the USARPAC/PACOM SON requirement for six ARL-Ms with Electronic Intelligence (ELINT) and

JUSTIFICATION: FY 01 funds will provide for further software retrofits and improvements to existing IMINT suites. FY01 also provides funding for the procurement and installation of Demand Assigned Multiple Access (DAMA) compliant radios mandated for Tactical Satellite communications on the two ARL-C aircraft.

Exhibit P-40M Budget		n Justifica	Item Justification Sheet		_	Date		February 2000		
Appropriation / Budget Activity/Serial No.			-	P-1 Item Nomenclature	9					
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	aft					A	ARL MODS (AZ2050)			
Program Elements for Code B Items		Code	Other Related Program Elements	m Elements						
Description	Fiscal Years									
Classification	<u> </u>	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
B-Kits for WKSTS										
1-00-111-1111 Operational	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	1.6
Upgrade to IMINT Suite										
1-00-222-222 Operational	0.0	0.0	2.6	4.6	0.5	0.0	5.1	0.0	0.0	12.8
Radar Improvements										
1-00-333-333 Operational	0.0	0.0	1.6	0.0	0.0	1.6	0.0	0.0	0.0	3.2
Upgrade to DAMA Compliant Radio										
1-01-111-1111 Operational	0.0	0.0	0.0	2.0	1.9	3.0	0.0	0.0	0.0	6.9
COMINT Upgrades (No P3a Set)										
1-03-111-1111 Operational	0.0	0.0	0.0	0.0	0.0	5.1	3.0	3.0	0.0	11.1
Aircraft Standardization (No P3a Set)										
1-03-222-222 Operational	0.0	0.0	0.0	0.0	0.0	5.9	5.0	5.0	0.0	15.9
Aircraft Survivability Equipment for ARL (No P3a Set)	et)									
1-03-333-3333 Operational	0.0	0.0	0.0	0.0	0.0	5.8	5.8	5.8	0.0	17.4
Joint Tactical terminal (JTT) integration (No P3a Set)	et)									
1-03-444-4444 Operational	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0	0.9
Airspace 2000 (No P3a Set)										
1-03-555-5555 Operational	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
Upgrade ARL-M4 & M5 IMINT Suites (No P3a Set)										
1-03-666-666 Operational	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	2.7
Totals	0.0	0.0	5.8	9.9	2.4	29.1	20.9	15.8	0.0	80.6
		**************************************								***************************************

							NDIV	IDUA	MOF	JIFIC/	INDIVIDUAL MODIFICATION									Date		Febru	February 2000		
MODIFICATION TITLE:	B-Kits for WKSTS 1-00-111-1111	or W	'KST	S 1-	00-1	11-1	11																•		
MODELS OF SYSTEMS AFFECTED: ARL-M	AFFECTE	 4	KL-M																						
DESCRIPTION / JUSTIFICATION:	CATION:																								
Hardware was procured in FY 99 under ARL (TIARA), A11500. The ARL system will be upgraded to allow full Electronic Support Measures (ESM) capability for ARL M4. This will result in workstation hardware and software improvements to allow complete integration of the	cured in or ARL M	₹ 4.	39 ur	der, vill r	ARL esult	(TIAF	₹A),	A115 ation	00. hard	The ware	ARL and	syste softv	m wil	l be	upgra	aded	to al to al	ow fr	all Ele	ctroni	c Supr	oort M on of tl	easur ne	S	
Superhawk ESM sensor suite.	ensor su	nite.	ΕY	00 ft	spur	the e	xecn	tion	of the	9 COL	ıtract	optio	n for	the i	nsta	latio	of tl	rese	FY 00 funds the execution of the contract option for the installation of these efforts.	s.					
DEVELOPMENT STATUS / MAJOR DEVELOPMENT	S / MAJOR	DEV	ELOP	MEN		MILESTONES:	ĘS:		:																T
				E E	Planned				¥	Com	Accomplished	þ													
Contract Option Award	ard				2QFY00	8																			
System Status Review System Acceptance Test	iew e Test			,	2QFY00 4QFY00	8 8																			
System Fielding				_	1QFY01	5																			-
Installation Schedule:																			į						
Δ.	Pr Yr		FY 1999	66			-	FY 2000	1			-	FY 2001	9		-	-	FY 2002	202			占	FY 2003		
	Totals	-	7	8		4	+	2		e	4 -	-	2	3		4	-	2	3	4	_	2	က		4
Outputs						_					$\dashv$	=				_									
	F	FY 2004	4				FY 2005	55				FY 2006	90				FY 2007	)7			2			Totals	<b>"</b>
i	-	2	3	4		_	2	3		4	-	2	3	4		-	2	3	4	٥	Complete				
Inputs Outputs																									
METHOD OF IMPLEMENTATION:	ITATION:					₹	NINIS	TRAT	IVE LE	ADMINISTRATIVE LEADTIME:	ME:					<del>K</del>	opoc	NOL	PRODUCTION LEADTIME:	IIME					
Contract Dates: Delivery Date:		2 2	FY 1999 FY 1999						FY 2000 FY 2000	8 8	я Q	Feb 00 Oct 01				<u>ት</u>	FY 2001 FY 2001								
		۱	ı	١	l	I	ı	l		١		١	l		l	١		١	l	l					7

				8	0.1		1.5	
			TOTAL		~		-	-
February 2000			ř	δ				
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Date			FY 2005	₩.				
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			904	€				
			FY 2004	δţ				-
			3	€9				
			FY 2003	2			<u> </u>	ļ
			L	ð				-
Ш			FY 2002	€9			ļ	
NO			7	ğ				
INDIVIDUAL MODIFICATION			100	€9				
MODII	111		FY 2001	Qty				
/IDUAL	111-1		00	\$	1.5		1.5	1,6
INDI	KSTS 1-00-111-1111		FY 2000	Qty	7-		-	v Hermon
	STS			-				
	or Wk		7 199	€				
	B-Kits for W	_	iL.	δţ			L	
	<u>6</u>	FY 1998	and Prior	\$				
Ш		E L	and	Ofy				
Ш	ont):	illions)			ring Agmt Kits		-L	J
	TLE (C	(\$ in M			onrecur curring ge Orde suppor Suppor ogram N ware Eqpt Kits Kits	Kits Kits Kits Kits		Cost
	I NOI	PLAN:			//ENT Kits, N Kits, N Inipmen g Chan; g Chan; f Hardor f Hardor g Prior eggt -	Eqpt - Eq	Ilment	Iremer
	MODIFICATION TITLE (Cont):	FINANCIAL PLAN: (\$ in Millions)		Ļ	Kit Quantity Installation Kits Installation Kits, Nonrecurring Equipment Equipment, Nonrecurring Engineering Change Orders Data Training Equipment Support Equipment Other Interim Contractor Support Gov't In House/Program Mgmt FY 1998 & Prior Eqpt - Kits FY 1999 Eqpt - Kits FY 2000 Eqpt - Kits FY 2001 Eqpt - Kits FY 2001 Eqpt - Kits FY 2001 Eqpt - Kits	FY 2002 Eqpt - Kits FY 2003 Eqpt - Kits FY 2004 Eqpt - Kits FY 2005 Eqpt - Kits TC Equip-Kits	Total Installment	Total Procurement Cost
	MOD	FINA		1. 1.	PROCCC Kit Que Installia Equipulation Equipulation Data Data Data Data Data Data Data Dat	7 4 4 4 5	Tot	Ţot

					NDIV	IDUAL N	INDIVIDUAL MODIFICATION	ATION						Date	Febr	February 2000	
MODIFICATION TITLE:	Upgrade to IMINT Suite 1-00-222-2222	to IMIR	VT Suit	e 1-00	-222-2	222											
MODELS OF SYSTEMS AFFECTED: ARL-M	S AFFECTED	: ARL-M															
DESCRIPTION / JUSTIFICATION:	-ICATION:																
This modification provides for upgrades and improvements to the Imagery Intelligence (IMINT) suites of each of the ARL-M aircraft. These improvements will allow ARL to more effectively meet its imagery collection requirements established by both CINC SOUTHCOM and CINC	provides f	or upgra L to mo	ades aı re effe	nd imp	rovem	ents to	the Im	agery    ection	ntelliga	ence (II	AINT) s establi	uites of shed by	each of	and improvements to the Imagery Intelligence (IMINT) suites of each of the ARL-M aircraft. These fectively meet its imagery collection requirements established by both CINC SOUTHCOM and CINC	aircraf	t. Thes	e S
PACOM. Improvements consist of both (FOPEN) and Hyperspectral Imagery (H	ements co	nsist of	both h	ardwai	e and	softwa grafed	re mod	ification ted	ns. In	addition t the S0	, speci	al applic	ation se	hardware and software modifications. In addition, special application sensors (Foliage Penetration SI) will be integrated and tested to support the SOUTHCOM theater of operations.	age Pel	netratio	<u> </u>
		) 5 					}	) }	2 1 3	)	) - - - - -	) : :	5				
In FY00 two ARL aircraft (M1 & M2) will have their IMINT suites upgraded to incorporate a 2nd Generation FLIR and improved Daylight Imaging System (DIS). In FY01 ARL aircraft (M3) will receive the IMINT suite upgrade and installation will occur on all three aircraft. All are	aircraft (N	11 & M2	) will ha	ave the	eir IMII	AT suit	es upgi	aded t	o incor	porate	a 2nd G	Senerati Ilation v	on FLIR	have their IMINT suites upgraded to incorporate a 2nd Generation FLIR and improved Daylight craft (M3) will receive the IMINT suite unorade and installation will occur on all three aircraft. A	ved Day	ylight	ā
currently operational in Korea. This will bring them up to the same IMINT baseline found on the mc FY01 will consist of further software modifications to change video recording from analog to digital.	nal in Kore of further	ea. This software	s will br	ing the	em up	to the s	same II	MINT b	aselin g from	e found analog	on the to digit	more re	cently b	bring them up to the same IMINT baseline found on the more recently built ARL aircraft (M4 & M5). difications to change video recording from analog to digital.	craft (N	14 & M5	). (2)
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES	JS / MAJOR	DEVELO	MENT	MILEST	ONES:												
Contract Award			<u>-</u> ∠	Planned		Accol	Accomplished	g	<u>무</u> 5	Planned	٩	Accomplished	shed				
System Status Review	view		2 2	2QFY00					<u> </u>	10FY01							
System Acceptance Test	se Test		20	2QFY01					4	4QFY01							
System Fielding			g	3QFY01					₫	1QFY02							
Installation Schedule:																	
	Pr Yr	FY 1999	666			FY 2000	0		Ē	FY 2001			FY 2002		F	FY 2003	
	Totals	1 2	8	4	-	2	က	4	-	2 3	4	-	2	3 4	-	2 3	4
Inputs Outputs												-					
<u></u>			ľ			İ	-							-	-		
	<u>-</u>	<u>§</u>	1	-	FY 2005	- 1	+	-  -	FY 2006			FY 2007	-		<u> </u>		Totals
	-	2 3	4	-	2	e	4	-	2	3 4	-	2	, E	4 Complete	eje		ľ
Inputs Outputs																	m m
METHOD OF IMPLEMENTATION:	NTATION:			⋖	DMINIS	TRATIVE	ADMINISTRATIVE LEADTIME:	ME:	8	Months		RODUCT	PRODUCTION LEADTIME:	TIME: 13	Months	SI	
Contract Dates:		FY 1999				à à	FY 2000	Feb 00	8 ;		ш. і	FY 2001	Oct 00	0			
Delivery Date:		FY 1999				<u>`</u>	F.Y. 2000	Mar 01	5		_	FY 2001	Nov 01				

			INDIVIDI	INDIVIDUAL MODIFICATION	ICATION				Date	Februs	February 2000	Г
MODIFICATION TITLE (Cont):	ก	Upgrade to IMINT Suite 1-00-222-2222	√T Suite 1-0	0-222-222	72							
FINANCIAL PLAN: (\$ in Millions)	FY 1998											
	d Pri	7 199	7 200	FY 2001	_	7 200	FY 2003	FY 2004	7 200	TC	TOTAL	
	Ofy \$	Oty \$	Oty \$	δţ	\$ Oty	φ.	Oty \$	Oty \$	Oty \$	Oty \$	Öţ	8
PROCUREMENT												
Kit Quantity				****								
Installation Kits			*****					5 0.0			2	9.0
Installation Kits, Nonrecurring							***********	0.1				0.1
Equipment			2 2	2.2	<del>[</del> -						ო	4.4
Equipment, Nonrecurring												
Software Modifications			0	0.2	0.2	0.4	***************************************	2.2	~			3.0
Data								0			••••••	0.1
Training Equipment												
Support Equipment						*****	***************************************					
Other							••••••					
Interim Contractor Support											*********	
Gov 't In-House/Program Momt						0		- C			***********	75
Contractor Engineering	***************************************			0.1	0.2			0.2			-	0.5
						eenees needsaan neene			00 7 7 8 8 7 7 8 0 0 0 0 0 0 0 0 0 0 0 0			
						e të Sonë et etë e desime	138 NOT THE REST OF THE PER					
Installation of Hardware	•										**********	
FY 1998 & Prior Eqpt Kits												
FY 1999 Eqpt - Kits			A*************************************									
FY 2000 Eqpt Kits				_	1.0						-	1.0
FY 2001 Eqpt Kits			******	2	2.0						7	2.0
FY 2002 Eqpt kits			***************************************									
FY 2003 Eqpt kits			**********									
FY 2004 Eqpt kits		reveled to	***********					5 0.6	6		2	9.0
FY 2005 Eqpt kits		****	**********		-							
TC Equip-Kits		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,										
Total Installment		:		3	3.0			5 0.6	0	*********	80	3.6
Total Procurement Cost			2	2.6	4.6	0.5		5.1				12.8

	INDIVIDUAL MODIFICATION	ATION					Date		February 2000	000	
MODIFICATION TITLE: Radar Improvements 1-00-333-3333	3333										
MODELS OF SYSTEMS AFFECTED: ARL-M											
DESCRIPTION / JUSTIFICATION:											
This modification provides for software improvements to the Moving Target Indicator (MTI)/Synthetic Aperture Radar (SAR) sensor. Specific FY00 improvements include increased SAR image resolution, additional radar modes of operation, improved MTI probability of detection.	nts to the Moving resolution, addit	Target In onal rada	dicator r modes	(MTI)/Sy of oper	ynthetic Ag ation, impl	erture Ra	adar (S/	AR) ser bility of	nsor. Sidetecti	pecific on.	ပ
FY03 provides for further improvements through additional software algorithm uploads to improve image structure and target recognition.	dditional software	algorithm	upload	s to imp	rove imag	e structur	e and t	arget re	scogniti	on.	
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	ES:										
Planned	Accomplished										
Contract Award 2QFY00											
System Acceptance Test 4QFY00 System Fielding											
Totals 1 2 3 4	1 2 3	4	FY 2001	3	4	FY 2002	3 4	-	FY 2003	3 8	4
Inputs Outputs											
FY 2004 F	FY 2005	FY 2006	900		FY 2007	7		101		P	Totals
1 2 3 4 1	2 3 4	1 2	3	4	1 2	3 7	Q Co	Complete			
Inputs											
O OF IMPLEMENTATION:	ADMINISTRATIVE LEADTIME:	IME	Ž	Months	PRODUC	PRODUCTION LEADTIME:	TIME	12 M	Months		
S:	FY 2000	Feb 00			FY 2001						
Delivery Date: FY 1999	FY 2000	Feb 01			FY 2001						

			INDIVIDE	INDIVIDUAL MODIFICATION	ICATION						Date		February 2000	2000	
MODIFICATION TITLE (Cont):	Ä	Radar Improvements 1-00-333-3333	າents 1-00-3	33-333											
FINANCIAL PLAN: (\$ in Millions)	EV 1008	<b>Γ</b>													
	and Prior	FY 1999	FY 2000	FY 2001		FY 2002	FY 2003	203	FY 2004	-	FY 2005	77	$\mid$	TOTAL	
	Qty \$	Qty \$	Oty \$	άţ	o \$	Oty \$	Q ty	s	Oty \$	Ø	\$	άβ	€9	Qty	es l
RDT&E															
PROCUREMENT															
Kit Quantity											,				
Installation Kits															
Installation Kits, Nonrecurring															
Equipment															
Equipment, Nonrecurring															
Software Modifications			<del>-</del>	1.5				1.5							3.0
Data															
Training Equipment							*******		****						
מיייים באלייים בייים בייים בייים	*****			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,										********	
Support Equipment															
Other									*****						
Interim Contractor Support												•••••			
Gov't In-House/Program Mgmt			0.1	_			********	0.1							0.2
									*********						
	***************************************														
												**********			
														,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Installation of Hardware															
FY 1998 & Prior Eqpt - Kits														***************************************	
FY 1999 Eqpt Kits															
FY 2000 Eqpt Kits															
FY 2001 Fapt Kits														·Paradis	
EV 2002 Eart - kits														*******	
1 2002 Lapt - Kits															
FT ZUUS EGPI KIIS															
FY 2004 Eqpt kits														••••••	
FY 2005 Eqpt kits														•••••••	
TC Equip-Kits															
Total Installment															
Total Procurement Cost			1.6	9				1.6					-		3.2

						Z	DIVID	INDIVIDUAL MODIFICATION	DIFICA	LION							Date		February 2000	.2000	
MODIFICATION TITLE:	Upgrade to DAMA Compliant Radio 1-01-111-1111	de to	DAN	IA Co	mplia	nt Ra	dio 1-	01-11	1-111	γ											
MODELS OF SYSTEMS AFFECTED: ARL- C and ARL -M	S AFFECTE	D: Af	₹-C;	and AR	ار ج																
DESCRIPTION / JUSTIFICATION:	FICATION:																				
Modification replaces the current LST-5 i	aces the	curre	nt LS	T-5 r	adios	in the	ARL	with [	Jemai	ad Ass	igned	Multip	ole Ac	adios in the ARL with Demand Assigned Multiple Access (DAMA). This modification provides for the	(AMA)	. This	modific	ation p	rovide	s for th	ē
upgrade of communications suites including all required hardware and software modifications. The modifications will be acomplished by	unication	us su	ites i	ncludi	ng all	requ	red h	ardwa	re an	d softv	vare n	nodific	ations	s. The n	nodific	ations	will be	acomp	olished	à i	ç
contractor at the systems field site. In PTO Figure purchase of equipment and rack changes required for the two AKL-C alrefatt. PTOZ and EY03 fund modification of 3 ARI -M aircraft and installation of the radios and system flight test. Modification will allow the ARI to meet	systems in	ileia. In of	site. 3 AR		Jircrafi ircrafi	or spi	r tne instal	Jarion	ase or	eduib	ment :	and ra syster	ick cr.	anges r nt test 1	equire Vodifir	ed for tr	ie two	ARL-C	v alrcra ARI to	III. ry( meet	70
requirement that all DOD SATCOM radios be DAMA compliant.	all DOD	SATC	MOC	radio	s be [	AMA(	moo 1	pliant.	) ; )	) ; ;	3 3 3	6	Ď				) }		) ! :		
DEVELOPMENT STATUS / MAJOR DEVELOPMENT	JS / MAJOF	R DEV	ÉLOP		MILESTONES:	TONE	iö														
	ARL-C	ပ	4	ARL-C		ARL-N	ARL-M (FY02)	_						ARL-M (FY03)	(FY03)						
	Plan	Planned	Accor	Accomplished	_				1	Planned	ĀĊ	Accomplished	hed	Planned		Accomplished	О				
Contract Award	1QFY01	70			O	ontrac	Contract Award	_	F	1QFY02				1QFY03							
System Status Review	2QFY01	Y01			U)	ystem	System Review	>	•	2QFY02											
Airframe Modification		70			-	Airfran	e Modi	Airframe Modifications		3QFY02				2QFY03							
Radio integration and Test		1QFY02				Kadio	Radio Integration Ar System accentance	Radio Integration And Test		1QFY03	~			4QFY03	~						
oystem acceptance of	-	3				2326	acce			3				2				į			T
Installation Schedule:	-																				
	 ⊁ 	-	FY 1999	66			[]	FY 2000		$\downarrow$	<u>ш</u>	FY 2001	-	$\downarrow$	<u></u>	FY 2002			FY 2003	903	
	Totals	-	7	က	4			2	3	4	=	2	3	4		2 3	4	-	2	3	4
Inputs									-						2 0			<del>-</del> ,			
Outputs		+	$\exists$					_		4	-				7					-	
		FY 2004	4			1	FY 2005			16	FY 2006				FY 2007			٢		۲	Totals
	-	2	3	4	+	2		3	4		2	3	4	-		3 4		Complete		2	
Inputs	2																				5
Outputs	2									_	_		_								5
METHOD OF IMPLEMENTATION:	INTATION:					ADMII	<b>IISTR</b>	ADMINISTRATIVE LEADTIME:	EADTI	ΛĒ:	-	Months	ths	PROL	UCTIO	PRODUCTION LEADTIME:	TIME:	7	Months		
Contract Dates:		Œ	FY 1999					FY 2000	00					FY 2001	Ď	Nov 00	_				
Delivery Date:		Œ	FY 1999					FY 2000	00					FY 2001	01	Oct 01					
			ĺ																		

			NDIVIDU	INDIVIDUAL MODIFICATION	TION					Date	l o	Feb	February 2000	
MODIFICATION TITLE (Cont):	֖֖֖֖֓֞֝֞֝֞֞֝֞֞֞֝֞֝֞֝֞֞֝֞֞֞֝֞֞֞֓֓֞֞֝֞֓֓֞֝֞֞֝֞֞	Upgrade to DAMA Compliant Radio 1-01-111-1111	/A Complian	t Radio 1-0	1-111-111	_								
FINANCIAL PLAN: (\$ in Millions)	L	F												
	FY 1998 and Prior	FY 1999	FY 2000	FY 2001	FY 2002	002	FY 2003	3 FY 2004	900	FY 2005	35	5	TOTAL	AL.
	Qty \$	Oty \$	Qty \$	Qty \$	Qty	H	Qty s	\$ Qty	s	Qty	\$	Qty \$	Qty	\$
RDT&E												•••••		
PROCUREMENT							***************************************							
Kit Quantity							********							
Installation Kits				7	0.4	0.2	7	0.4					2	1.0
Installation Kits, Nonrecurring					0.3	0.2				******		**********		0.5
Equipment					0.6	0.3		9.0						1.5
Equipment, Nonrecurring				***************************************		-								
Engineering Change Orders					0.1			0.1						0.2
Data					0.1	0.1	*******	0.1						0.3
Training Equipment/training					0.1	0.1	***************************************	0.1				**********		0.3
Support Equipment					0.1	0.1		0.5				***********		0.7
Other								•				**********		
Interim Contractor Support												***********		
Contractor Engineering					0.1	0.1		0.1						0.3
Gov't In-House/Progrm Mgmt			nadadas er errorre		0.2	0.5		0.2						9.0
				***************************************										
												••••		
Installation of Hardware														
FY 1998 & Prior Eqpt Kits														
FY 1999 Eqpt Kits										<b></b>				
FY 2000 Eqpt Kits														
FY 2001 Eqpt Kits				***************************************	7	9.0	<b></b>						- 5	9.0
FY 2002 Eqpt kits				***************************************		•••	-	0.3						0.3
FY 2003 Eqpt kits							7	9.0					- 2	9.0
FY 2004 Eqpt kits										•••••				
FY 2005 Eqpt kits		,,,,,,,,,,,		***************************************										
TC Equip-Kits							*********							
Total Installment					2	9.0	3	6.0					5	1.5
Total Procurement Cost					2.0	1.9		3.0						6.9

Exhibit P-40,	Justification Sheet
	Item,
	Budget

								Date:				
		Exhibit P-40, Budget	_	tem Justification Sheet	ation Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	ial No:					P-1 Item Nomenclature:	ire:					
AIR	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	:NT / 2 / Modification	of Aircraft			•		A	AH1F MODS (AA0150)			
Program Elements for Code B Items:	ns:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY1999	FY 2000	FY 2001	FY 2002	FY 2003	FY2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	1314.1	1.1	0.4	0.5	0.4	0.4	0.5	0.5	0.5	0.5	31.1	1350.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	1314.1	1.	0.4	0.5	0.4	0.4	0.5	0.5	0.5	0.5	31.1	1350.0
Initial Spares	92.3											92.3
Total Proc Cost	1406.4	1.1	0.4	0.5	0.4	0.4	0.5	0.5	0.5	0.5	31.1	1442.3
Flyaway U/C												
Wpn Svs Proc U/C												

DESCRIPTION: The AH-1 is a single-engine, tandem seated helicopter with a maximum gross weight of 10,000 pounds and a T53-L-703 1800 SHP engine. The armament system consists of the M65 TOW Missile System, 20mm gun and Hydra-70 rockets.

JUSTIFICATION; AH-1F fleet will remain in the National Guard with fleet size of 250-350 through FY12. FY01 funds will be utilized to continue rewire of AH-1 fleet. degradation of the aircraft and mission package, impacting readiness and combat support capability. DoD regulations mandate that AMCOM provide sustainment sustainment modifications in addition to operational improvement modifications required to meet mission requirements. Failure to provide funding will result in Rewire improves RAM, lowers O&S cost and enhances safe operation. All modifications are complete except Rewire. Funding is also required for safety and support for the Cobra fleet for all branches of the service.

Exhibit P-40,	ation Sheet
ш	Justific
	Item
	udget
	m

					;			Date:				
		Exhibit P-4	Exhibit P-40, Budget It	tem Justific	tem Justification Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	erial No:					P-1 Item Nomenclature:	ıre:					
IA	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	INT / 2 / Modification	n of Aircraft					¥	AH-64 MODS (AA6605)	(6		
Program Elements for Code B Items:	ams:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	419.3	50.5	36.9	50.3	32.7	18.5	35.4	37.9	32.9	27.2	99.0	840.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	419.3	50.5	36.9	50.3	32.7	18.5	35.4	37.9	32.9	27.2	99.0	840.6
nitial Spares												
Total Proc Cost	419.3	50.5	36.9	50.3	32.7	18.5	35.4	37.9	32.9	27.2	99.0	840.6
Flyaway U/C												
Wpn Sys Proc U/C												

gun. The AH-64 is capable of defeating armor in day, night, and adverse weather. The Target Acquisition Designation Sight (TADS) is housed in a turret on the nose of the AH-64 and consists of a TV, Forward Looking Infrared (FLIR), Direct View Optics, Laser Designator/ Rangefinder and Spot Tracker. The Pilot Night Vision Sensor DESCRIPTION: The AH-64 is a single main rotor, twin engine, tandem seat attack helicopter armed with HELLFIRE antitank missiles, 2.75 inch rockets, and 30MM (PNVS) is a FLIR which allows Nap-of-Earth operations at night by the pilot independent of the co-pilot/gunner's FLIR.

available. Modifications are based on fleetwide reliability, availability, and maintainability (RAM) improvements and limited operational enhancements identified as a result of lessons learned during Operation Desert Storm, and Albania/Kosovo operations. Funding for FY01 buys the following modifications: JUSTIFICATION: As the Army's primary Attack Helicopter, the AH-64 has been integrated in maneuver and fire plans of the combined arms team and will have the primary mission of destroying high value targets. The firepower, speed and agility of the AH-64 will provide a versatility to the combined arms team not otherwise

- a. Airframe Modificationsb. TADS/PNVS Upgrades
- Contingency Modernization Project (CMP) c. Contingency Modernization Project (CNd. Misc Mod less than \$5M (No P3a set)

Exhibit P	Exhibit P-40M Budget It	em Justific	Item Justification Sheet			Date		February 2000		
Appropriation / Budget Activity/Serial No.				P-1 Item Nomenclature	ire					
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	ion of Aircraft					AH	AH-64 MODS (AA6605)	(1		, , , ,
Program Elements for Code B Items		Code	Other Related Program Elements	am Elements						
Description	Fiscal Years									
OSIP NO.   Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
ontrol Syste										
1-86-01-2025 Unclassified	11.5	8.2	0.0	0.0	3.6	5.4	12.9	6.2	3.4	51.2
Fuel Control Warning Panel (No P3a Set)										
1-89-01-2063 Unclassified	7.8	1.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	10.0
Embedded GPS / Inertial NAvigation System (EGI) (No P3a Set)	ı (EGI) (No P3a	Set)								
1-92-01-2072 Unclassified	82.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	84.6
H-11 Bolt Replacement (No P3a Set)										
1-92-01-2035 Safety	4.8	0.0	0.0	0.0	0.9	6.0	0.9	6.0	0.0	8.4
Airframe Modifications										
1-95-01-2007 Op/Log	7.4	8.3	9.5	4.8	15.8	14.7	4.9	8.6	7.0	81.0
Alternate Laser Code (No P3a Set)										
1-92-01-2033 Unclassified	32.3	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.9
TADS/PNVS I/II upgrades (No P3a Set)										
1-94-01-2004 Unclassified	67.9	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65.8
TADS/PNVS Upgrades										
1-94-01-2005 Unclassified	5.4	6.7	6.3	7.0	7.2	7.4	7.9	8.8	24.8	81.5
Misc Mod less than \$5.0M (No P3a Set)										
NA Unclassified	265.6	5.6	13.2	2.6	3.5	3.0	4.0	2.7	35.9	336.1
ORT Conversion (No P3a Set)										
NA Unclassified	17.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.9	45.1
Captive Boresight Harmonization Kit (CBHK) Upgrade (No P3a Set)	Upgrade (No F	3a Set)								
NA Unclassified	14.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.5
Contingency Modernization Project (CMP)										
1-00-01-2001 Unclassified	0.0	0.0	3.2	4.1	4.4	6.5	2.3	0.0	0.0	20.5

	Exhibit P-	Exhibit P-40M Budget Item Justification Sheet	m Justifica	tion Sheet			Date		February 2000		
Appropriation / Budget Activity/Serial No.	/Serial No. AIRCRAFT PROCUREMENT (2 / Modification of Aircraft	ion of Aircraft		ш.	P-1 Item Nomenclature		14	AH-64 MODS (AA6605)			
Program Elements for Code B Items	ims		Code	Other Related Program Elements	n Elements		:				
1											
Description OSIP NO.	Classification	FISCAL Years FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Totals			50.3	32.7	18.5	35.4	37.9	32.9		0.66	840.6
***************************************	***************************************			777777777777777777777777777777777777777	7						***************************************
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				:							

					INDI	VIDUAL	INDIVIDUAL MODIFICATION	NO						Date		February 2000	, 2000	
MODIFICATION TITLE (Cont):		Ba	ckup C	ontrol	System	(BUCS	Backup Control System (BUCS) 1-86-01-2025	2025										
FINANCIAL PLAN: (\$ in Millions)																		
		866																
	and	and Prior	FY 1999	666	FY 2000	8 4	FY 2001	FY 2002	C	FY 2003	ΕΫ́	FY 2004	FY 2005	005	2 2	<b>4</b>	TOTAL	AL *
BDT&E	ŝ	•	ŝ	,	)	+	-	-	-		3	•	ĝ	•	<u> </u>	•	3	<b>,</b>
PROCUREMENT															******			
Kit Quantity	24						.,,,,,,,,,	56		38	06		42		18		238	
Installation Kits		2.0							3.6	5.4	+	12.9		6.2		3.4		33.5
Installation Kits, Nonrecurring															******			
Equipment	89	2.9	99	4.6													134	7.5
Equipment, Nonrecurring		4.7		2.9	***************************************													7.6
Engineering Change Orders					***************************************		**********				-							
Data					***************************************		******						********					
Training Equipment																		
Support Equipment																		
Other				Ċ			•••••											0
Interim Contractor Support		,		- w													*********	- u
menin contractor outport		?		5			*******			**********								 
										*********			***********					
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											-			-				
							***************************************											
					***************************************												******	
installation of natoware																		
FY 1998 & Prior Eqpt Kits	45		43		4		*********										92	
FY 1999 Eqpt Kits					25		4										99	
FY 2000 Fapt Kits							,						•••••					
EY 2001 Fant - Kits							***********								A.A.		*********	
EV 2002 Fast - tite	***********						*******	90							*******		ä	
1   2002 Lupt - Nits							*****	7							d++1++4++1		2 6	
FT ZUUS Eqpt Kits							********			S S							Š	
FY 2004 Eqpt kits											6						6	
FY 2005 Eqpt kits													45		*******		42	
TC Equip-Kits															18		18	
Total Installment	45		43		26		14	26		38	06		42		18		372	
Total Procurement Cost		11.5		8.2					3.6	5.4	+	12.9		6.2		3.4		51.2

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						INDIN	DUAL N	INDIVIDUAL MODIFICATION	ATION							Date		Febru	February 2000	
MODIFICATION TITLE:	: Airfr	Airframe Modifications 1-95-01-2007	lodifica	ations	1-95-0	1-200	7													
MODELS OF SYSTEMS AFFECTED:	IS AFFEC	TED: A	AH-64 Apache	ache																
DESCRIPTION / JUSTIFICATION:	<b>IFICATIO</b>	ä																		
Operational and logistical improvement	logistic	al impr	ovem	ent.	ſhis m	odifica	tion pr	ovides	for str	ength	ening a	airfrar	пе соп	nponer	nts to v	This modification provides for strengthening airframe components to withstand higher loading.	nd high	ner loa	ding.	
Funding addresses three primary areas plus several additional areas susceptible to cracking. Specific modifications include slot closure,	ses thre	e prim	ary are	eas plu	us seve	eral ad	ditions	al areas	S SUSCE	eptible	to cra	scking.	Spec	Alic m	odifica	tions in	clude s	Slot clo	sure, a	
single piece 530 and 547 frame, and elastomeric mounts. There will be 474 An-54A aircrait retrolited. In addition starting in FT 02, ZT4 An- 64A aircraft that will not be remanufactured into Londbows will be retrofitted with additional airframe modifications to include spider mount.	and 54 will not	·/ rram be ren	ie, and nanufa	relast Icture	omeric 1 into L	onabc	TS. ITI SWS Wi∐	ere wii II be re	rofitte	d with	-04A a additi	iircraii onal a	retron irframe	rrea. e modi	n addi ficatio	non sta ns to in	irtiing iir	ırıoz spider	., 2147 mount.	Ļ
wing pylon upgrade, FS176 upgrade, and T/R blade leading edge protection. Installation costs included in the contract and are not broken out	ade, FS	176 up	grade	, and	T/R bla	ide lea	iding e	dge pr	otectio	in. Ins	tallatio	n cost	s inclu	ded in	the co	ontract	and ar	e not b	roken	ont
separately.																				
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	rus / MA.	JOR DE	VELOPI	MENT N	AILESTO	NES:		,							,	,		•	,	
Contract was awarded Nov 96 for ECP 1315 for retrofitting 474 AH-64A Apaches. An additional 214 AH-64A Apach remanufactured to Londbow configuration will be retrofitted with additional airframe modifications starting in FY 02.	arded N	lov 96 oo woo	for EC	P 131 ation v	5 for re vill be	etrofitti retrofit	ng 47² ted wit	t AH-6. Th addii	4A Ap⊱ ¦ional a	aches. <sub>3</sub> irfran	. An ac	ddition	al 214 ons sta	AH-62 artina i	IA Aps in FY (	1315 for retrofitting 474 AH-64A Apaches. An additional 214 AH-64A Apaches that are not being on will be retrofitted with additional airframe modifications starting in FY 02.	าat are	not be	ing	
		} :	) D		) !									)		į				
:																				
installation Schedule:	r v		FY 1999	g	$\mid$		FY 2000		-	"	FY 2001				FY 2002			1	FY 2003	
	Totals	+	2	3	4	-	2	3	4	-	2	3	4	-	2	3	1	2	3	4
Inputs	31	10	9	2	9	24	24	25	25	31		32		25		25 26	3 26		27	27
Outputs	31	10	10	10	10	24	24	25	25	31	32	32	32	17	21 2	25 26	5 26	26	27	27
		FY 2004	- 1			FY 2005	Ç.		٦	FY 2006			"	FY 2007			To		•	Totals
	-	2	ဗ	4	-	2	3	4	-	2	3	4	1	2	3	4	Complete			
Inputs	78	53	53	29	12	12	12	12	12	9										688
Outputs	27	27	27	29	13	13	13	12	12	12	12	$\dashv$								688
METHOD OF IMPLEMENTATION:	ENTATIO				A	NINIS	<b>PRATIVE</b>	ADMINISTRATIVE LEADTIME:	IME:	2	: Months	ths	PRC	PRODUCTION LEADTIME:	ON LEA	DTIME:	1	Months		
Contract Dates:		IL	FY 1999	Δ	Dec 98		£	FY 2000	Ϋ́				FY 2001	:001	Ϋ́					
Delivery Date:		ΙL	FY 1999	Z	Nov 99		7	FY 2000	NA				FY 2001	2001	Ν					

					S	IVIDUAL	INDIVIDUAL MODIFICATION	CATION								Date		February 2000	, 2000	
MODIFICATION TITLE (Cont):		Air	frame	Modific	Airframe Modifications 1-95-01-2007	-95-01	-2007											!		
FINANCIAL PLAN: (\$ in Millions)	L	90																		
	and Prior	Prior	FY 1	FY 1999	FY 2000	000	FY 2001	71	FY 2002	102	FY 2003	03	FY 2004	004	FY 2005	900	5		TOTAL	   
•	δţ	\$	ģ	65	Q.	69	Qty	<u> </u>	Qty	\$	Qty	\$	Qty	€9	Qty	<del>S</del>	Qty	ક્ક	Qty	₩
RDT&E PROCUREMENT Kit Quantity	71	6.1	86	7.7	127	9.5	53	4.8	118	15.8	115	14.7	26	4.9	45	8.6	35	7.0	688	79.1
Installation Kits Installation Kits, Nonrecurring					,				·											
Equipment  Equipment, Nonrecurring						,												-	***************************************	
Engineering Change Orders																				
Data Training Equipment															,					
Support Equipment																		•		
Other		-		•																
Interim Contractor Support		5.7		9.0													***************************************			
					***************************************		***************************************													
Installation of Hardware												·							ì	
FY 1998 & Prior Eqpt Kits	31		9						*********		*********		***************************************						5 2	
FY 1999 Eqpt Kits	********				86												******		ο (	
FY 2000 Eqpt Kits			*********				127										*******		127	
FY 2001 Eqpt - Kits	,								23										53	
FY 2002 Eqpt kits									36		82	•		,					138	
FY 2003 Eqpt kits											24		91						115	
FY 2004 Eqpt kits			.,										19		7				. 56	
FY 2005 Eqpt kits	••••••		-11-14-149				••••••								4		-	-	45	
TC Equip-Kits																	32		35	
Total Installment	3		40		98		127		83		106		110		51		38		688	
Total Procurement Cost		7.4		8.3		9.5		4.8		15.8		14.7		4.9		8.6		7.0		81.0

						NDIV	'IDUAL I	INDIVIDUAL MODIFICATION	ATION							Date		February 2000	y 2000	
MODIFICATION TITLE:	E TAD	S/PN\	/S Up	grades	TADS/PNVS Upgrades 1-94-01-2005	01-200	)5													
MODELS OF SYSTEMS AFFECTED: AH-64 Apache	AS AFFEC	TED: ,	\H-64 A	pache																
DESCRIPTION / JUSTIFICATION:	TIFICATIO	ä																		
Operational, and logistical improvement	d logistic	al imp	rover	nent.	Provide	e for s	ystem	upgrad	le throu	eu ybr	pdn/w	ated h	ardwa	re inte	gration	into ار	Provide for system upgrade through new/updated hardware integration into Lots III thru XII	hru XII	-	,
IADS/PNVS systems. Facilitate maintainers access to IADS/PNVS systems thereby allowing for accelerated application of outstanding ECPs. Additionally, satisfies program growth and the life extension requirements and provides for offsite contractor support for	stems. I	Facilit. Sfies r	ate ma	aintain in gro	ers ac	cess to	ife exte	S/PNVS	s syste	ms the	reby 6	allowir. Provide	ng tor a	occelei offsite	rated a	pplicati	ion of a	outstan or	ging	
upgrades/integration of hardware in the	ation of h	hardw	are in	the T/	ADS/PI	WS.	This w	ill also	provid	e a sin	gle co	nfigura	ation T	ADS/F	NVS 1	to the L	TADS/PNVS. This will also provide a single configuration TADS/PNVS to the Longbow. This is a	w. Thi	s is a	
critical AH-64D element in the Longbow	element	in the	Long	bow re	emanu	facturii	ng effo	rt. Als	o provi	des fu	nding	for the	214 A	) Mode	el Apac	ches th	remanufacturing effort. Also provides funding for the 214 A Model Apaches that will not be	not be		
remanufactured into Longbows. Installation costs are included in contract and are not proken out separately.	Into Lon	woagi	S. Ins	stallatic	n cost	sareı	nciude	₽ = 0	ntract	and ar	e not t	локеп	out se	sparati	eıy.					
DEVELOPMENT STATUS / MAJOR DEVELOPMEN	TUS/MAJ	JOR DE	VELOF	MENT	T MILESTONES:	ONES:														
Contract award was Dec 95.	vas Dec	1 1	Jate o	TIIIST C	lelivery	, was ,	Date of first delivery was Jun 96.													
Installation Schedule:																				
	Pr Yr		FY 1999	999			FY 2000	0		Ш	FY 2001			Ė	FY 2002			FY 2003	:003	
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3 4	1	2	3	4
Inputs	8	12	12	14	15	15	15	18											18	18
Outputs	42	6	10	12	12	12	13	15	15	15	15	15	15	1	17 1	15 15	15	15	15	16
		FY 2004	904			FY 2005	35	$\dashv$	٦	FY 2006			Ĺ	FY 2007			οT		_	Totals
	1	2	3	4	-	2	3	4	-	2	3	4	-	2	3	A O	Complete			
Inputs	8	18	9	18	23	23	24	24	16			17	16	17	16 17	7	51			743
Outputs	18	18	18	18	25	25	56	26	31	31 ;	31 3	31	16 1	17 1	16 17	7	51			743
METHOD OF IMPLEMENTATION:	<b>MENTATIO</b>	ä			¥	DMINIS	TRATIV	ADMINISTRATIVE LEADTIME:	TIME:	2	Months	ths	PRO	DUCTIC	PRODUCTION LEADTIME:	TIME:	7	Months		
Contract Dates:		<b>L</b>	FY 1999		Dec 98		Œ	FY 2000	Dec 38	66			FY 2001	001	Dec 00	0				
Delivery Date:			FY 1999		3ul 99		Œ	FY 2000	Jul 00	00			FY 2001	001	Jul 01	_				

				INDIN	JUAL N	INDIVIDUAL MODIFICATION	TION						٥	Date		February 2000	/ 2000	
MODIFICATION TITLE (Cont):	1	TADS/PNVS		Upgrades 1-94-01-2005	94-01-	2005												
FINANCIAL PLAN: (\$ in Millions)	FY 1998																	
	and Prior	FY 1999	$\vdash$	FY 2000		FY 2001		FY 2002	E à	FY 2003	FY 2004	004	FY 2005	305	2	4	TOTAL	AL.
RDT&E			_		+		+		<b>3</b>	•	<b>3</b>	•	<u> </u>	>	हे	→	3	€
PROCUREMENT																		
Kit Quantity	97	52		55		89		89	2		2		77		183		743	
Installation Kits	4.5	<u></u>	2.5		2.5		3.2	က <u>်</u>	3.3	3.4		3.5		4.1		11.0	.,	38.0
Installation Kits, Nonrecurring																		
Equipment			1.2		 		7.5	— <u> </u>	<del>ر</del> : ت	1.6	:	9.		1.7	***************************************	3.5		13.9
Equipment, Nonrecurring						***************************************		*********										
Engineering Change Orders								***************************************										
Data Harining Family															*******			
raining Equipment																		
Support Equipment				<b></b>	-		-						••••••	1				1
Other			2.5		2.5		2.3	 ~	2.4	2.4		2.8		3.0		10.3		28.2
Interim Contractor Support	0.9	<u> </u>	0.5					***********										1.4
				***************************************		······································		**********				•						
	***************************************			<b>~</b>				***********									***********	
	·····																4	
	******************************														***************************************		••••••	
Installation of Hardware	d day lander																	
FY 1998 & Prior Eapt Kits	45	43		6		***************************************											97	
FY 1999 Eapt – Kits				46		<b>o</b>							•••••				55	
STIN TOUC AL						, ř		_									, 4	
7 2000 Edpt - Kits						5		٠ - ٢							********		3 8	
FT ZUUT Eqpt Kits								8	0				••••••				8	
FY 2002 Eqpt kits									23	~	15	******					89	
FY 2003 Eqpt kits						•••••					22		13				2	
FY 2004 Eqpt kits													2				2	
FY 2005 Eapt kits													19		28		77	
TC Equip-Kits															183		183	
Total Installment	45	43		55		09		64	61		72		102		241		743	
Total Procurement Cost	5.4	4	6.7		6.3		7.0	7.	.2	7.4		7.9		8.8		24.8	*******	81.5

FY 2002       FY 2002     FY 2003     FY 2004     FY 2005     TC     TOTAL       330     330       70     70     60     310       70     70     70     70     70       40     80     20     23       66     70     70     70       66     70     70     70       70     70     70     70       70     70     70     70       80     20     320       66     70     197       40     80     20     197       66     70     23     226       66     70     23     226       66     70     23     226				INC	IVIDUAL	INDIVIDUAL MODIFICATION	TION						Date	٥	Feb	February 2000	
FY 1989	MODIFICATION TITLE (Cont):	ပိ	ontingency Me	odemiza	ation Pro	ject (CM	P) 1-00-	-01-2001									
### REMENT    Contractor Support   Contractor Suppo	FINANCIAL PLAN: (\$ in Millions)	L	-														
Contractor Support   Contrac		and Prior	FY 1999	FY 2	000	FY 2001	F	Y 2002	FY 2	2003	FY 20	104	FY 200	35	7	101	TAL
REMENT antity antity for King for Kin				Qţ	Н				οţ	\$	Qty	€9	Qfy	\$		Qty	\$
antify shorted of the following state of the	RDT&E PROCUREMENT																
aton Kits Norrecurring ment above Kits Norrecurring ment above Kits Norrecurring ment and Kits Norrecurring ment and Kits Norrecurring ment and Kits Norrecurring ment and Kits Norrecurring and Kits Norrecurring ment and Kits Norrecurring	Kit Quantity										*****						
### Part Note Curring	Installation Kits								.,,,								
The contractor Support  If Equipment  If Equ	Installation Kits, Nonrecurring										***************************************					******	
The Nonceuting series of the s	Equipment				3.2	-	4.1	4.4		6.5	•••••••	2.3	***********				20.5
tr Contractor Support  1. Contractor Support	Equipment, Nonrecurring														***************************************		
tr Equipment  of Equipment  of Contractor Support  ut  the Equipment  of Contractor Support  ut  the Equipment  of Contractor Support  ut  the Equipment  of Contractor Support  ut  the Equipment  of Contractor Support  ut  the Equipment  of Contractor Support  of Contractor	Engineering Change Orders							*****			-		// <del>///</del>		*********		
ut Contractor Support  Location contractor Support  Lact Equipment  Location contractor Support  Lact Location contractor Support  Locat	Data																
tr Equipment to Contractor Support  ut  tt  tContractor Support  ut  tt  tContractor Support  tt  tt  tContractor Support  tt  tt  tt  tContractor Support  tt  tt  tt  tcontractor Support  tt  tcontractor Support  tt  tcontractor Support  tt  tcontractor Support  tt  tcontractor Support  tcontractor Su	Training Equipment											-					
ut tut  40 70 70 70 60 310 310  ut  40 70 70 70 60 320  ut  24 33 40 80 20 70 70  197  ut  41 44 65 70 70 70 70  26 70 70 70 70  197  41 44 65 23	Support Equipment			V 24 May 100 A	•			d blades see									
ut to ntractor Support  ut  40  70  70  70  70  70  70  70  70  70	Other																
ut  tr  40  70  70  70  70  70  70  70  70  70	Interim Contractor Support												••••••				
ut tit  40  70  70  70  70  70  70  70  70  70	ECC												************				
ut  tr  40  70  70  70  70  70  70  70  70  70	·																
ut  40 70 70 70 60  110  111  111  111  111  111  111	input			9		2		0	22		09					310	
ut  40 70 70 70 320 320 320  11  24 33 40 80 20 197  11  11  24 33 40 66 70 66 170	Output		,	40		20		0	2		09					310	
ut table	ARCS										***************************************	-	> <b>&gt;&gt;&gt;</b>				
ut  1	Input			4		20	7	0	2		2	·	en femilia ka			320	
ut 24 33 40 80 20 197 197 197 197 197 197 197 197 197 197	Output	••••••		40		02		0	22		70					320	
ut 24 33 40 80 20 197 197 197 197 197 197 197 197 197 197	MRSE				•												
tiput         24         33         40         80         20         197           out         20         70         66         70         226           tiput         3.2         4.1         4.4         6.5         2.3	Input	***********		24		33		0	80		20					197	
trput	Output	***************************************		24		33	<u>–</u>	0	80		20					197	
out         20         70         66         70         226           itput         3.2         4.1         4.4         6.5         2.3	¥ - ¥					<del></del>								**************************************			
20         70         66         70         226           3.2         4.1         4.4         6.5         2.3	AIA		***********	20		2		"	8				,,,,,,,,,,,,			300	
4.1 4.4 6.5 2.3	Output			1 2		20	00		2 8							226	
4.1 4.4 6.5 2.3																	
					3.2		4.1	4.4		6.5		2.3		_			20.5

								Date:				
		Exhibit P-40, Budget	0, Budget It	em Justific	Item Justification Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	al No:					P-1 Item Nomenclature:	ire:					
AIRC	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	ENT / 2 / Modification	of Aircraft					CH-47 CARGO F	CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)	(MYP) (AA0252)		
Program Elements for Code B Items:	.S:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	16.4	48.4	59.5	80.4	114.9	117.1	148.9	172.7	196.6	230.0	131.3	1316.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	16.4	48.4	5.65	80.4	114.9	117.1	148.9	172.7	196.6	230.0	131.3	1316.3
Initial Spares												
Total Proc Cost	16.4	48.4	59.5	80.4	114.9	117.1	148.9	172.7	196.6	230.0	131.3	1316.3
Flyaway U/C					,							
Wpn Sys Proc U/C												

DESCRIPTION: The CH-47 heavy lift helicopter is a day/night tandem rotor helicopter powered by two T-55 turbine engines. The CH-47 is the Army's only active heavy cargo helicopter and is a key element in the Contingency CORPS. The CHINOOK provides invaluable battlefield mobility for tactical vehicles, artillery and engineer equipment, personnel and logistical support equipment. Cargo Helicopters provide the logistical base for Air-Land operations. The CHINOOK also provides support of operations other than war.

capability, maintainability, reliability, and aircraft/crew safety. The major modifications occurring during FY 01 are procurement of kits for Improved Battery, Conversion JUSTIFICATION: FY 01 funding procures safety and operational modifications to the CH-47D fleet and trainers to maintain the latest configuration. Modifications are planned to fielded aircraft to incorporate safety and operational modifications to the CH-47D aircraft. These changes contribute to the effectiveness of heavy lift of the T55-L-712 to T55-GA-714A Engines, Auxiliary Power Unit Upgrade, and Extended Range Fuel System.

	Exhibit P-4	Exhibit P-40M Budget It	Item Justification Sheet	ation Sheet			Date		February 2000		
Appropriation / Budget Activity/Serial No.					P-1 Item Nomenclature						
AIR	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	n of Aircraft				2	CH-47 CARGO HI	CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)	(MYP) (AA0252)		
Program Elements for Code B Items	SI		Code	Other Related Program Elements	im Elements						
Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Installation of Modification Kits Various	cation Kits Various									-	
Various	Operational/Safety	26.2	2.6	1.4	0.8	0.0	0.0	0.0	0.0	0.0	31.1
Improved Cross Sha	Improved Cross Shaft Adapters, Coupling & Bolts	solts				THE CONTRACTOR OF THE CONTRACTOR	7,000				
1-95-01-0817	Safety	0.0	0.0	0.0		0.2	0.2	0.0	0.0	0.0	1.6
Improved Battery											
1-95-01-0822	Operational	0.0	0.0	0.0	2.5	0.3	0.3	0.0	0.0	0.0	3.1
Engine Filtration System (No P3a Set)	stem (No P3a Set)										
1-93-01-0807	Operational	0.0	0.0	0.0	0.0	5.1	7.0	8.4	20.2	32.4	73.0
Extended Range Fuel System	el System										
1-97-01-822	Operational	7.1	6.5	6.2	6.9	18.9	18.6	17.6	0.0	0.0	81.7
Engine Upgrade to 1	Engine Upgrade to T55-GA-714A Configuration	LC.									
1-96-01-0828	Operational	91.0	69.3	103.4	102.3	123.3	146.7	170.6	209.8	6.86	1,115.4
APU Upgrade											
New	Safety	0.0	2.0	4.0	3.5		0.0	0.0	0.0	0.0	10.5
Totals		124.3	80.4	114.9	117.1	148.9	172.7	196.5	230.0	131.3	1,316.3
THE PARTY OF THE P	annin managaran managaran da kanagaran da kanagaran da kanagaran da kanagaran managaran managaran managaran ma				***************************************	***************************************	ANA ANA A CANADA MANA ANA ANA ANA ANA ANA ANA ANA ANA A			***************************************	
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					IQNI	INDIVIDUAL MODIFICATION	MODIFIC	CATION						Date	Febru	February 2000	
MODIFICATION TITLE (Cont):		lns.	Installation of		Modification Kits Various	on Kits	Various										
FINANCIAL PLAN: (\$ in Millions)	) FY 1998	866															
	and Prior	Prior	FY 1999	399	FY 2000	000	FY 2001	71	FY 2002		FY 2003	FY 2004	ΕY	FY 2005	70	TOTAL	AL
	ģ	€9	δ	49	Q Vj	€9	ζί	\$	Qty \$	\$ Oty	\$ 1	Qty \$	ð	€9	Oty \$	ąş	€9
RDT&E PROCUREMENT									<u></u>		,, <u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>						
Kit Quantity	8089	20.4													***************************************	8089	20.4
					ndendala da a selekt			-	***************************************								
					************				***********								
					d didd de en dele e		***************************************										
					the address to a discover				<b></b>						-25-25/4/44/4/4		
															******		
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	***************************************																
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											•••••				de No White con a		
							**********		******								
							*****	•									
Installation of Hardware																	
FY 1998 & Prior Eapt - Kits	4474	5.8	1673	2.6	1202	1,4	740	8.0								8089	10.7
FY 1999 Font Kits																)         	
10000 TEL					***												
FY 2000 Eqpt Kits							*******		<del></del>		••••••						
FY 2001 Eqpt Kits																	
FY 2002 Eqpt kits						•											
FY 2003 Eqpt kits																	
FY 2004 Eqpt kits	********														.,,,,,,,,,,		
FY 2005 Eqpt kits	**********																
TC Fourin-Kits			,								********						
Total Installment	4474	5.8	1673	2.6	1202	1.4	740	8.0								8089	10.7
101		2 2	1	2	-		2	2 6								2	
i otal Procurement Cost		7.07		7.0		1.4		0.8	-	-							31.1
												-					

Field Retrofit Initiated

nstallation Schedule:

Inputs Outputs

Contract Dates: Delivery Date:

Outputs Inputs

AODIFICATION TITLE:

Improved Cross Shaft Adapters, Coupling & Bolts 1-95-01-0817     Illions    FY 1998				INDIVID	UAL MOD	INDIVIDUAL MODIFICATION	7					ä	Date	Fet	February 2000	
FY 1998         FY 2000         FY 2000         FY 2000         FY 2003         FY 2004         FY 2004         FY 2005         TO         S         CO         S	MODIFICATION TITLE (Cont):	lπ	proved Cross	Shaft Adap	ters, Cc	upling &	Bolts 1-9	5-01-08	317							
Anniecuring recurring recurring methods of the state of t	FINANCIAL PLAN: (\$ in Millions)	FY 1998														
Oty \$ Gty\$		and Prior	FY 1999	FY 2000	FY	2001	FY 2002	_	Y 2003	FY 20	104	FY 20	305	1 1	OT TO	TAL
Nonrecurring recurring the Orders and and and and and and and and and and	L		Oty \$		ð	49		+		Qfy	€9	Qfy	\$		Oty	€
on orders  rewring  r	PROCUREMENT		, · ·				***************************************									
curing riders riders riders richts ri	Installation Kits				467					a decembra del de				.,	467	1
t - Kits  1 - Ki	Installation Kits, Nonrecurring	***************************************							***************************************							
t - Kits  1.1	Equipment	***************************************							*******							
t Kits  1 Ki	Equipment, Nonrecurring  Fraineering Change Orders						,,,,,,,									
t - Kfts  1 - Kfts  1 - Kfts  1 - Kfts	Data	***************************************							-144-0-0-0-0							
1 - Kits  1 - Ki	Training Equipment										,					
1 Kits 1	Support Equipment	***************************************												,		
1 Kits  Ki	Other	***********										••••••		-,>-,		
t - Kits  1 - Kits  234 0.2 233 0.2  234 0.2 233 0.2  1.1 0.2 233 0.2	Interim Contractor Support					***********								*****		
t - Kits  1 - Kits  234 0.2 233 0.2  234 0.2 233 0.2  1.1 0.2 233 0.2		***************************************														
t - Kits  1 - Kits  234 0.2 233 0.2  234 0.2 233 0.2  1,1 0.2 233 0.2												***************************************				
t Kits  1 - Kits  234 0.2 233 0.2  234 0.2 233 0.2		***************************************										,,.,,				
t - Kfts  1 - Kfts  234 0.2 233 0.2  1 - 234 0.2 233 0.2												**************				
rior Eqpt – Kits       ot – Kits       ti – Kits       ot – Kits       ot – Kits       ot – Kits       ot – Kits       ot – Kits       ot – Kits       ot – Kits       ot – Kits       ot – Kits       ot – Kits       ot – Kits       ot – Kits       ot – Kits       ment       nnent Cost       nnent Cost       0.2       0.3       0.1       0.2       0.2       0.3       0.2       0.3       0.3	Installation of Hardware	•••••							**********							
of – Kits  of – Kits	FY 1998 & Prior Eqpt Kits											,				
of – Kits  of – Kits	FY 1999 Eqpt Kits															
of - Kits  t - Kits  t - Kits  t - Kits  t - Kits  of - Kits  of - Kits  ment Cost  n - Kits  n	FY 2000 Eqpt Kits								***********							
of – kits  ot – kits  ot – kits  ot – kits  ot – kits  ment Cost  nnent Cost	FY 2001 Eqpt Kits	•••••	*****									,,			467	0.5
of – kits  ot – kits  ot – kits  ot – kits  ment Cost  nnent Cost	FY 2002 Eqpt kits															
ot – kits  ot – kits  ment Cost  ment Cost	FY 2003 Eqpt kits															••••
ot – kits  ent  ment Cost  1.1 0.2 0.2 0.2	FY 2004 Eqpt kits	•••••														
ent ment Cost 1.1 0.2 233 0.2	FY 2005 Eqpt kits															
1.1 0.2 233 0.2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TC Equip-Kits															
1.1	Total Installment	••••													467	
	Total Procurement Cost					1.1		0.2	0.2	_	-	ļ				1.6

		INDIVIDUAL MODIFICATION	L MODIFI	CATION						Date	te	Feb	February 2000	
MODIFICATION TITLE: Improved Battery 1	tery 1-95-01-0822	0822												
MODELS OF SYSTEMS AFFECTED: CH-47D CH	17D CHINOOK a	NOOK and Trainers.												
DESCRIPTION / JUSTIFICATION:														
Type of Improvement - Improved Operational Capability. Incorporation of a New Lead Acid Battery will reduce the Currently the aircraft battery has a frequent failure rate. This has been a major maintenance concern for the users.	Operational a frequent fai	ational Capability. Incorporation of a New Lead Acid Battery will reduce the frequent battery failure. Juent failure rate. This has been a major maintenance concern for the users.	scorporals has b	ition of	a New najor m	Lead /	Acid Ba	attery w oncern	ill redu	ce the users.	frequent	batter	y failur	வ்
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	OPMENT MILE	STONES:												
Production Contract Award			Pla	Planned Jan 01	_		Accor	Accomplished	77					
First Production Hardware Delivery Field Retrofit Initiated	<i>&gt;</i> -			Sep 01 Oct 02	- <b>-</b> - 0									
Installation Schedule:			:											
PrYr	FY 1999	FY 2000	000		ш	FY 2001			FY 2002	02		L.	FY 2003	
Totals 1 Countries 1 Countries Courteuts	3 4	1 2	m	4	=	7	, е	1 28	28 88 28	28 3	59 4	58 5	2 3 58 58 58 58	59
FY 2004		FY 2005			FY 2006			FY 2007	200	П		To		Totals
1	3 4	2 3	4	1	2	3	4	2	3	4	Complete	jte		
Inputs Outputs 59														467 467
MPLEMENTATION:	ract	ADMINISTRATIVE LEADTIME:	IVE LEAD	TIME:	4	Months	SI	PRODL	CTION	EADTIN	1E: 8	Months	SI	
Contract Dates: FY 1999 Delivery Date: FY 1999	666 666		FY 2000 FY 2000					FY 2001 FY 2001		Jan 01 Sep 01				
							l		l				l	

			NDIVIDUA	INDIVIDUAL MODIFICATION	NOI				Date	Februs	February 2000	
MODIFICATION TITLE (Cont):	П	proved Batte	Improved Battery 1-95-01-0822	22								
FINANCIAL PLAN: (\$ in Millions)	EV 1008	F										
	and Prior	FY 1999	FY 2000	FY 2001	FY 2002		FY 2003	FY 2004	FY 2005	TC	TOTAL	ال
	Qty \$	Qty \$	Qty \$	Qty \$	Qty	8	Oty \$	Qty \$	Qty \$	Qty \$	Q Çţ	ક્ક
RDT&E			•									
PROCUREMEN									***************************************			
Ą-Ŀ;ŧ											467	2.3
				787	200						467	0
batteries					<u></u>				***************************************		<u> </u>	7.0
			*****		***************************************		*******					
			*********		- Merenn						**********	
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								-		AAA AAA 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	************	
											**********	
							****************					
							*****************************					
Installation of Hardware												
FY 1998 & Prior Eapt - Kits												
FY 1999 Eapt Kits												
FY 2000 Eapt Kits												
EY 2001 Fant Kits					234	0.3	233 0.3	3			467	9.0
FY 2002 Eapt kits		1										
FY 2003 Eapt kits												
## ### ### NOOC NO												
1 2004 Edpt - Nis												
FY ZUUS Eqpt Kits												
TC Equip-Kits												
Total Installment					234		233 0.3	8			467	0.6
Total Procurement Cost				7	2.5	0.3	o	3				3.1

			INDI	VIDUAL	INDIVIDUAL MODIFICATION	CATION	~						Date		Februa	February 2000	
MODIFICATION TITLE: Extended	Extended Range Fuel System 1-97-01-822	el Syste	m 1-9	7-01-8	22												
MODELS OF SYSTEMS AFFECTED: CH 47D Chinook	CH-47D Chin	yok															
DESCRIPTION / JUSTIFICATION:																	
Type of Improvement - Improved Operational Capability. The Extended Range Fuel System (ERFS) provides the CH-47D with up to 2400	oved Opera	lional (	apabil	ity. ⊤t	e Exte	nded F	Range	Fuel S	system	ı (ERF	S) pro	vides t	he CH-	47D wi	th up t	0 2400	
gallons of auxiliary fuel for worldwide self-deployment or tactical forward area refueling. The typical ERFS installation includes three 800-	orldwide se	if-deplc	yment	or tac	tical fo	ward	area re	efuelin	.g. The	typic:	al ERF.	S insta	llation	include	s three	-008 ÷	
gailon auxiliary tuel tanks fitted with crashworthy self-sealing bladders, pressure retueling capability, and fuel quantity probes. For mission	ed with cras	hworth Leaple	y selt-	sealing ingto	i bladd	ers, pr	essure	refue	iing ca	pabilit	/, and	tuel qt	antity p	robes.	For n	nossion	
panel, individual tank restraint systems, interconnecting self-sealing fuel hoses, fuel vent hoses, electrical cables, and a Forward Area	auvillaly luc nt systems,	interco	nnectir	nd self	sealing	tuel t	TOSES,	fuel ve	ant hos	ses, el	ectrica	cable cable	s, and	тез, а г а Богия	ard Are	Z g	
Refueling Equipment (FARE) kit. The FARE kit provides the necessary components to permit tactical forward area refueling of combat	) kit. The F	ARE ki	t provi	des the	) neces	sary c	odwo	nents t	o pern	nit tact	ical for	ward a	rea ref	ueling (	of com	bat	
weapons systems at two refueling points 200 feet from the helicopter. The A - Kit is the airframe modification kit. The ERFS can be installed	ueling point	s 200 fe	et fror	n the h	elicopt	er. Th	e A - k	Cit is th	e airfr	ате п	odifica	ition ki	: The	ERFS (	san be	install	eq
National Guard Dedicated Procurement has funded procurement and installation of 12	r in less trial rocurement	has fur	nutes i	oy nan rocure	in 30 milliones by name without the use of tools. has funded procurement and installation of 128 A-Kits, and 14 B-kits.	nd inst	use o	n of 12	.8 A-K	its, an	114 B	kits.					
DEVELOPMENT STATUS / MAJOR DEVELOPMEN	EVELOPMEN	T MILESTONES	TONES:														
	Plar	Planned			Ac	Accomplished	shed										
Production Contract Award	⋖	Aug 98				Aug 98	8										
First Hardware Delivery	Ja	Jan 99				Jan 99	66										
Testing Completed	ηſ	99 Jun				Jun 99	<u>ග</u>										
Field Installation Initiated	ÿ	Sep 99				Jun 99	66										
				:						·							
Installation Schedule:	2007			ì	9	ŀ		7000		-	<b>ו</b>	000			ì		
Totals	66611	4	7	2 2000	3	4	-	2 200		4	-	2002	6	4	2 6	2 3	4
Inputs	18	4	6	8	20	20	8	6	6	6	19		-	1	Ξ	=	11
Outputs			58	19	20	20	20	8	6	6	6	16	16 17	, 17	11	11	11
	•				ŀ				ŀ								
FY	FY 2004		FY 2005	305			FY 2006	9			FY 2007		_	То		_	Totals
1 2	3 2	1	2	3	4	-	2	3	4	1	2	3	4	Complete			
Inputs 10 11	···																303
Outputs 11 10	11								_				_				303
METHOD OF IMPLEMENTATION:	Contract		ADMIN	STRATI	ADMINISTRATIVE LEADTIME:	TIME:		4 Mo	Months	<u>R</u>	DDUCT	PRODUCTION LEADTIME:	DTIME:	9	Months		
Contract Dates:	FY 1999	Feb 99			FY 2000	щ <	Feb 00			<u>``</u>	FY 2001	Feb 01	5 Z				
Delivery Date:	FY 1999	Aug 39	١		FY 2000	₹	Aug 00			֡֡֡֡֡֡	F.Y 2001	Aug 01	5				

MODIFICATION TITLE (Cont):	🎳	Extended Ran	Range I	INDIVIDUAL MODIFICATIO	DUAL M	INDIVIDUAL MODIFICATION el System 1-97-01-822	710N 22							Date	Feb	February 2000	
FY 1998	<u>φ</u> ,	- 1 - 1 - 1 - 1	90	2000	-	7000		0000		2002	7000	5	2	400	C	<u> </u>	Ī
5	<u> </u>	Off T Ago	+	Oty S	O	ty \$	ρ	ty \$	ofy L	\$ \$	Qfy L	\$	Cty \$	c <del>(</del> \$	Oty 5	Qty Of A	₽ ₩
7	5.9		4 1.1	2		<u>ه</u>		25 16.5	5 25	16.8	24	16.5				107	69.1
	0.0 0.3	22	0.7	35	0.5		0.9 0.1 0.3	4 0.6 0.2 0.9		0.3 0.1		0.1		***		303	3.8 2.0 3.5
			9.0	62	8.0		6.0	99	4	0.5	2	0.2				83 95 86 86 86 86 86 86 86 86 86 86 86 86 86	0.6 0.7 0.5 0.2
ļ!		28	9.0	79		35 0.		66 0.7	44	0.5	21	0.2				303	3.2
	7.1		6.5		6.2	9	6.9	18.9		18.6		17.6					81.7

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ndividue
t P-3a li
Exhibi

							INDIN	DUAL	INDIVIDUAL MODIFICATION	ATION							Date		Febr	February 2000	
MODIFICATION TITLE:		ine U	lpgra	de to	T55-	GA-7	14A C	onfigu	ration	1-96-(	Engine Upgrade to T55-GA-714A Configuration 1-96-01-0828	œ									
MODELS OF SYSTEMS AFFECTED:	IS AFFEC			7D CHI	ÒQN	CH-47D CHINOOK and Trainers	rainers														
DESCRIPTION / JUSTIFICATION:	<b>IFICATIO</b>	: N																			
Type of Improvement - Improved Operational Capability. This modification will upgrade the T55-L-712 engine to T55-GA-714A configuration increasing power to allow the aircraft to carry its primary payloads under high altitude/femberatures. The CH-47D as configured does not	ment -	Impro w the	oved	Opera	ation	al Cay	sability riman	7. Thi	s modi	ificatio nder h	ın will⊥	upgrad 'itude/'	de the	T55-l	L-712	engine	to T55	Gonfigu	4A col	nfigura es not	tion
meet its existing 1975 Required Operational Capability (ROC), i.e. 15,000 lbs. payload for 30 Nautical Miles radius at 4,000 feet/95 degrees	1975 F	Requii	red C	pera	iona	Cap	ability	(ROC	), i.e. 1	5,000	lbs. p	ayloac	d for 3	0 Nat	itical N	files ra	dius at	4,000 f	feet/95	degre	es
rainement. The addition of numerous engineering changes to provide salety, the latest in operational technology, and improved communications has increased the empty weight of the aircraft. Upgrade of the T55-L-712 engine to T55-GA-714A configuration will meet	has inc	reas	ed th	e emp	erigii oty w	eight	g cha of the	nges i aircra	o prov ft. Up	grade	alety, a of the	ne late T55-L		peral engin	e to Te	ecrino. 35-GA-	ogy, ar 714A c	onfigura	oved ation v	/ill me	et
the required operational capability. The program consists of: Converted Engines - two per aircraft plus spares, Engine Fielding Kits - two per	rational	cap	ability	Ť.	e pro	gram	consi	sts of:	Conv	erted	Engine	ss - tw	o per	aircra	ft plus	spare	, Engil	ne Field	ling Kit	s - two	ber
arcrart, Airtrame Mod Kits one per al (training, fielding support).	oddns I	. <del>.</del> . (13.	one	per al	_	t, tne	ınstall	ation (	or the ,	Airtrar	ne Kilt	and C	onven	Ed Ged Ged Ged Ged Ged Ged Ged Ged Ged Ge	ngines	on the	aircra	craft, the installation of the Airframe Kit and Converted Engines on the aircraft, and Logistic Support	-ogisti(	ddns :	בס
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES.	TUS / MA	JOR D	EVEL	OPME	Įξ	ESTO	NES:														
										Pa	Planned			1	Accomplished	olishec					
Production Decision	ion									ட	Feb 97				Fet	Feb 97					
Low Rate Initial Production Contract Award	roducti	on C	ontra	ct Aw	ard					ഗ	Sep 97				Ö	Dec 97					
First Production Hardware Delivery	Hardwa	re De	<b>Jiver</b>	_						ш	Feb 99	Ć.			Aug 99	66					
Verification/Testing	БГ									ഗ	Sep 99				Set	Sep 99					
Engine Fielding Initiated	nitiated									_	Nov 99	6									
Installation Schedule:																					
	Pr Yr		占	FY 1999				FY 2000	0			FY 2001	<u>-</u>			FY 2002	~		Ą	FY 2003	
	Totals	T		2	3	4	-	2	3	4	-	2	3	4	-	2	3	4	1	3	4
Inputs					-	_	5	5	13	5	10	9	10	9	10	7	11	11 1	13 13		
Outputs				_	_	-	-	13	13	13	13	10	10	9	10	10	=	11 11	1 13	13	13
					-				}				-				ļ				
		Ĭ.	FY 2004		4	}	FY 2005	2		ŀ	FY 2006	اي	_	ŀ	FY 2007		<del></del> -	Ĕ	10		Totals
	-	2			4	-	7	က	4	-	2	3	4	=	2	3	4	Complete	e		
Inputs	15	15	15	_	5	19	18	18	18	16	16	16	17	5	14	4	4				442
Outputs	13	15	15	_	2	15	19	18	18	18	16	16	16	17	13	14	14	1,	14		442
METHOD OF IMPLEMENTATION:	ENTATIC	ä	Contract	द्भ		ΑD	LSINIM	<b>RATIVI</b>	ADMINISTRATIVE LEADTIME	TIME:		4 Mo	Months	<u>a</u>	RODUC	TION LE	PRODUCTION LEADTIME:	: 18	Months	S	
Contract Dates:			FY 1999	66	Ma	Mar 99		፫	FY 2000	<u>R</u>	Jan 00			Œ	FY 2001	Ja	Jan 01				
Delivery Date:			FY 1999	66	Auc	Aug 00		Œ	FY 2000	Jul	Jun 01			ίĽ	FY 2001	Ju	Jun 02				
																			l		

					Q	VIDUAL	INDIVIDUAL MODIFICATION	SATION							Date	fe fe		February 2000	2000	
MODIFICATION TITLE (Cont):		Ē	Engine Upgrac		to T55-	GA-71	tA Con	figurati	on 1-9	e to T55-GA-714A Configuration 1-96-01-0828	328									
FINANCIAL PLAN: (\$ in Millions)	() EV 1008	000																		
	and Prior	Prior	FY 1999	666	FY 2000	00	FY 2001	<u> </u>	FY 2002	72	FY 2003	)3	FY 2004	4	FY 2005	95	TC		TOTAL	
	δţ	ક્ક	Qty	æ	Qty	es es	Qty	\$	Qty	Н	Qty		Qty	H	Qty	\$	Qty	\$	Qty	ક્ક
RDT&E PROCUREMENT													Arian and Page 1 (1991) 1994							
Converted Engines	95	0.09	73	51.2	108	76.1	108	77.4	130	94.8		113.9	171	130.9	213	166.5	100	79.8	1150	850.5
Engine Fielding Kits	96	15.9		7.0	98	10.3	98	11.1	104	12.9	122	15.4	146	18.9	150	19.8	35	5.0	884	116.2
Airframe Kits	20	6.2		3.1	20	0.9	43	5.5	52	6.8	09	8.0	73	9.9	75	10.4	14	2.0	442	57.7
PM Admin Support				3.3		4.3		4.0		4.0	·	3.4		3.9		5.4		3.6		31.9
Logistics		9.0		4.7		4.5		5.6		2.9	***************************************	3.7		4.3		4.4		2.2		38.4
Installation of Hardware FY 1998 & Prior Eqpt Kits FY 1999 Eqpt Kits FY 2000 Eqpt Kits FY 2001 Eqpt Kits FY 2003 Eqpt Kits FY 2005 Eqpt Kits FY 2005 Eqpt Kits FY 2005 Eqpt Kits			7	.0	25	2.2	\$	7.	84	<u>6</u> .	25	2.3	09	2.7	٤	£.	120	4.0	2 2 4 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	0.1 2.2 7.1 9.1 7.2 7.4 6.4
Total Installment			2	0.1	52	2.2	40	1.7	43	1.9	52	2.3	09	2.7	73	3.4	120	6.4	442	20.7
Total Procurement Cost		91.0		69.3		103.4		102.3		123.3		146.7		170.6		209.8		98.9		1115.4

					INDI	VIDUAL	INDIVIDUAL MODIFICATION	CATIO	7						Date	ø.	_	February 2000	8
MODIFICATION TITLE:	APU Upgrade	grade																	
MODELS OF SYSTEMS AFFECTED: CH-47D CHIN	S AFFECTED	: CH-47	CHINO	JOOK															
DESCRIPTION / JUSTIFICATION:	IFICATION:																		
Type of Improvement - Safety. This modification will upgrade the airframe mounted Auxiliary Power Unit (APU). Field reports have identified	ment - Safe	ety. Thi	s modil	fication	l will	upgrac	le the	airfran	ош ә	unted	Auxilia	ary Po	wer Ur	ıit (AP	U. Fi	eld repo	orts ha	ave ide	ntified
three failures of the APU where the turbine wheel burst during operation. Engineering studies reveal that one pound pieces of metal may be	the APU wi	nere the	turbine	e whee	el burs	ot durir	ig oper	ation.	Engi	neerin	g stud	ies rev	eal th	at one	bonnod	piece	s of m	etal ma	ay be
APU. A new design has been approved	oo leet upo sign has be	en appr	oved fo	or the	APU t	urbine	wheel	s that	have	a muc	h gree	ter fat	igue III	e S	rectio	for the APU turbine wheels that have a much greater fatigue life. Correction of this deficiency will	is defi	siency	2 E
preclude flight restrictions that will severely impact mission performance. The total buy of 540 kits includes the spare APUs that will be	strictions th	nat will s	everely	y impa	ict mis	sion p	erform	ance.	The	total b	uy of !	540 kit	s inclu	des th	e spar	e APU	s that	will be	:
modified durring overhaul, the 467 installations are on fielded aircraft. The containment shield will is designed to contain pieces of the turbine wheels are wheels inside the APU should the wheels burst. The shields will be installed on aircraft to lift safety restrictions until the turbine wheels are	overhaul, t e APU shou	he 467 Jld the v	nstalla /heels	tions a burst.	are on The	fielde shields	daircr will be	aft. Th e insta	e con	tainme 1 airce	aft to I	eld will ift safe	l is deg ty rest	signed riction	to cor s until	llations are on tielded aircraft. The containment shield will is designed to contain pieces of the turbine s burst. The shields will be installed on aircraft to lift safety restrictions until the turbine wheels are	eces ( bine v	of the to wheels	urbine are
replaced.													•						
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	US / MAJOR	DEVELO	MENT	MILEST	ONES:														
					₾	Planned	_			Accomplished	plishe	ō							
Production Contract Award	act Award				_	Aug 99	_			₹	Aug 99								
Delivery						Jan 00													
Installation						Jan 00													
Installation Schedule:																			
	Pr Yr	FY 1999	666			FY 2000	00			FY 2001	10			FY 2002	2			FY 2003	
	Totals	1 2	3	4	-	2	3	4	-	2	က	4	-	2	က	4	-	2	3
Inputs					37	37	3 38	8 8	45	45	45	45	34	34	8 8	35	70		
Curputs			_		_	70	5	99	3	?	?	7	7	5	5	5	3		
		FY 2004	_		FY 2005	905	-		FY 2006	98			FY 2007	1			10 To		Totals
	-	2 3	4	7	2	3	4	-	2	3	4	-	2	3	4	Complete	lete		
Inputs Outputs																			467 467
METHOD OF IMPLEMENTATION:	ENTATION:			٧	DMINI	STRATI	ADMINISTRATIVE LEADTIME	TIME:		3 N	Months	Δ.	PRODUCTION LEADTIME:	TION L	EADTIN		6 Mo	Months	
Contract Dates:		FY 1999		Aug 99		ш.	FY 2000	<u>ټ</u>	Jan 00			ĹL I	FY 2001	B,	Jan 01				
Delivery Date:		FY 1999		Jan 99		<u>.</u>	FY 2000	S	Sep 00			۱	FY 2001	ŭ	Sep 01				

			QNI	VIDUAL	INDIVIDUAL MODIFICATION	VOIL						Date		February 2000	000	Γ
MODIFICATION TITLE (Cont):	AF	APU Upgrade														
FINANCIAL PLAN: (\$ in Millions)	FV 1998	-														
	and Prior	FY 1999	FY 2000	00	FY 2001	_	FY 2002	FY 2003	)03	FY 2004	F	FY 2005	7		TOTAL	Τ.
	Qty \$	Oty \$	Q. Vj	\$	Oty \$	ğ	\$	Qty	<del>s</del>	Qty \$	å	€	Öţ	€9	Qfy	↔
RDT&E PROCUREMENT	B.D.A.L.															
Kit Quantity		180 2.0	180	2.1	180	2.1									540	6.2
Containment Sheilds		- "	340	9:0	***************************************							***************************************	***************************************		340	9.0
1000	***************************************				***********		Ċ									Č
noddne MA				7.0	***************************************	Z.O	<del>-</del>								*************	4
Installation of Hardware FY 1998 & Prior Eqpt – Kits FY 1999 Eqpt – Kits FY 2000 Eqpt – Kits FY 2001 Eqpt – Kits FY 2003 Eqpt – Kits FY 2005 Eqpt – Kits FY 2005 Eqpt – Kits			150	<del>.</del>	180	<u>5</u>	137 1.0	. 0				·			150 137	1.7 0.1
Total Installment			150	-	180	1	137 1.0	0							467	3.3
Total Procurement Cost		2.0		4.0		3.5	1.1	_								10.5

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	Exhibit P-40, Budget Item Justification Sheet
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		Exhibit P-40, Budget	0, Budget It	em Justific	Item Justification Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	al No:					P-1 Item Nomenclature:	re:					
AIR	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	ENT / 2 / Modification	of Aircraft					)	CH-47 ICH (AA0254)			
Program Elements for Code B Items:	JS:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qtv							11	17	27	58	216	300
Gross Cost	0.0	0.0	0.0	0.0	0.0	57.6	158.6	192.6	293.1	290.4	2020.9	3013.4
Less PY Adv Proc							26.2	38.0	55.6	55.6	479.9	655.3
Plus CY Adv Proc						26.2	38.0	55.6	55.6	55.1	424.8	655.3
Net Proc (P-1)	0.0	0.0	0.0	0.0	0.0	83.8	170.4	210.2	293.1	289.9	1965.8	3013.4
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	0.0	83.8	170.4	210.2	293.1	289.9	1965.8	3013.4
Flyaway U/C							13.1	10.1	9.2	8.6	8.5	
Wpn Sys Proc U/C							14.4	11.3	10.9	10.0	9.4	

mission is transportation of ground forces, class III/class V supplies, and battle critical cargo in support of all future contingencies.
A service life extension program, the ICH will sustain the aging CH-47D fleet and bridge the gap until the development of a follow-on aircraft. It will be fielded as a direct remanufacture approach. The airframe will be rebuilt, mission capability improved, and vibrations reduced through airframe stiffening to provide for long term O&S cost The Improved Cargo Helicopter (ICH) will be a modification to the current CH-47D helicopter to extend airframe service life, introduce an open electronic architecture reductions. Continued support, coverage, and sustainment of Maneuver, Fire Support, Air Defense, and Survivability mission areas will be provided by the ICH. Its that is compatible with the Army XXI digitized battlefield, and reduce Operating and Support (O&S) cost. This heavy lift helicopter program will be based on a

replacement for 300 of the CH-47D fleet.

	Exhibit P-	Exhibit P-40M Budget Item Justification Sheet	em Justifica	ation Sheet		<u>u</u>	Date		February 2000		
Appropriation / Budget Activity/Serial No. AIRCRAF	Serial No. AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	on of Aircraft		<u></u>	P-1 Item Nomenclature	e)	0	CH-47 ICH (AA0254)			
Program Elements for Code B Items	Sus		Code	Other Related Program Elements	m Elements						
Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	10	Total
Improved Cargo Helicopter	licopter										
TBD	Operational/Safety	0.0	0.0	0.0	97.6	132.4	154.6	237.5	234.8	1,541.2	2,358.1
Totals		0.0	0'0	0.0	57.6	132.4	154.6	237.5	234.8	1,541.2	2,358.1
100 - A 1 -					THE RESERVED AND A SECOND SECOND						
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		***************************************		***************************************	***************************************	***************************************					

						I CIVI	ואו ומוי	MODIFICATION	NTAO!	Z						ote C		ľ	Rebuisty 2000	9	Γ
MODIEICATION TITIE		oved (	Improved Cargo Helicopter	Helico	pter																
MODELS OF SYSTEMS AFFECTED: CH-47Ds	S AFFEC	TED: C	H-47Ds																		
DESCRIPTION / JUSTIFICATION:	FICATIO	ż																		į	
The Improved Cargo Helicopter (ICH)	irgo He	licopte	3r (IC)	t) will	be a r	nodific	ation	to the	curre	nt CH	47D h	elicop	ter to	extend	airfra	will be a modification to the current CH-47D helicopter to extend airframe service life, introduce an	vice lif	e, intro	- onpc	an	
open electronic architecture that is compatible with the Army XXI digitized battletield, and reduce Operating and Support (O&S) cost. This	rchitec	ture th	atis c	ompa .	tible ∧	ith the	» Arm)	ž	digitiz	ed bat	tletielo	, and	reduce	Opera :	ating a	nd Sup	) boort	O&S)	cost.	SIL -	
heavy lift helicopter program will be based on a remanutacture approach. The airtrame will be rebuilt, mission capability improved, and vibrations reduced through airframe stiffening to provide for long term O&S cost reductions. Continued support, coverage, and sustainment	ter prog d throu	yram v oh air	vill be frame	based stiffen	on a line to	remar	iutacti je for	ıre ap lona t∉	proac erm C	n. n. %S oc	e airtra Ist red	ame w uctions	III be r s. Cor	ebullt, Itinued	missio   supp	n capa ort. cov	bility II	mprov . and :	ed, an sustair	a iment	
of Maneuver, Fire Support, Air Defense, and Survivability mission areas will be provided by the ICH. Its mission is transportation of ground	Suppo	ort, Air	. Defe	тѕе, а	nd Su	rvivab	ility m	ission	areas	will b	e prov	ided b	y the i	CH. II	s miss	ion is t	ranspo	ortatio	n of gr	puno	
forces, class III/class V supplies, and battle critical cargo in support of all future contingencies.  A service life extension program, the ICH will sustain the aging CH-47D fleet and bridge the gap until the development of a follow-on aircraft.	lass V t	supplic progra	es, and	battle CH	e critic will su	al car stain t	go in : he aq	suppo ing CF	rtofa 1-47D	III futui	e cont and br	ingen. idge tf	cies. ne gap	until tl	ne dev	elopme	ent of	a follo	w-on a	iircraft	نه
It will be fielded as a direct replacement for 300 of the CH-47D fleet.	ıs a dire	ect rep	olacen	ent fc	r 300	of the	CH-4	7Ď fle	et.			)									
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	JS / MAJ	IOR DE	VELOP	WENT A	AILEST	ONES:															
						Plai	Planned		٩	ccom	Accomplished	7									
EM	<b>EMD Contract Award</b>	ract A	ward							Ma	May 98										
LRI	LRIP I Contract Award	itract /	₹ward			Dec 01	<u>.</u>				,										
LRI	LRIP II Contract Award	ntract	Awarc	_		Mar 03	က														
WS	MS III Production Decision	duction	ר Deci	sion	ي	Jan 04															
Installation Schedule:																			:		
	PrYr		FY 1999	66			FY 2000	00			FY 2001	901			FY 2002	22	_	ŀ	FY 2003	<sub>ω</sub>	
	Totals	-	7	m	4	-	2	<u>е</u>	4	-	2	m	4	7 7	3 2	က က	4 ε	<del>-</del> 4 (	2 4 0	ю 4 с	4 0 0
Outputs					-		-											4	2	ז	2
		FY 2004	94	Н		FY 2005	305	Н		FY 2006	900			FY 2007	-07			2		2	Totals
	-	2	3	4	-	2	3	4	-	2	3	4	-	2	က	4	Complete	olete			
Inputs	9	7	7		7	7	7	œ	9	9	7	7	9	9	7	7		164			300
Outputs	4	4	4	2	9	7	7	7	7	7	7	8	9	9	7	7		190			8
METHOD OF IMPLEMENTATION:	ENTATIO		Contract		4	OMINE	STRATI	ADMINISTRATIVE LEADTIME:	DTIME		9	Months		PRODUC	CTION	PRODUCTION LEADTIME:		18/12 Months	onths		
Contract Dates:		ш. Ш.	FY 1999 FY 1999				u	FY 2000 FY 2000						FY 2001 FY 2001							
council care:																			l	١	

			JOIVIDI	INDIVIDUAL MODIFICATION	CATION	,					Date		February 2000	, 2000	
MODIFICATION TITLE (Cont):	lm.	Improved Cargo Helicopter TBD	o Helicopter	TBD											
FINANCIAL PLAN: (\$ in Millions)	FV 1998	_													
	and Prior	FY 1999	FY 2000	FY 2001	-	FY 2002	FY	FY 2003	FY 2004	4	FY 2005		TC	TOTAL	٩L
	Oty \$	\$ AO	Oty \$	Qfy	σ	Oty \$	φ	€	δţ	<b>∞</b>	Oty \$	ğ	€9	Q ty	€
PROCUREMENT															
Recurring Production	*****				7.7	90.(	-	114.1		57.0	158	3.8	1174.1		1701.7
Other Flyaway					41.5	27.8	<u></u>	20.2		35.1	Ж	33.8	222.5		380.9
Training Devices	••••••••••				4.2	- 4	0 7	12.6		36.5	Υ	3.7	70.3		167.5
Other Support					7.7	<b>;</b>	t	:	***************************************	n 0		2	<u>}</u>		2.00
			*********								************		,,,,		
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			was a consistence of the												
				.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		****************	-			····					
						***************************************									
Installation of Hardware	***********														
FY 1998 & Prior Eqpt Kits															
FY 1999 Eqpt Kits															
FY 2000 Eqpt Kits	*******								••••••						
FY 2001 Eqpt Kits															
FY 2002 Eqpt kits									tuun milan midda						
FY 2003 Eqpt – kits	*>*************************************			•••••										.,	
FY 2004 Eqpt kits															
FY 2005 Eqpt kits									*********						
TC Equip-Kits	********								*****			-			
Total Installment												_			
Total Procurement Cost					57.6	132.4	4	154.6	7	237.5	23,	234.8	1541.2		2358.1

Exhibit P-40	Budget Item Justification Shee

								Date:				
		Exhibit P-40, Budget	0, Budget It	em Justific	Item Justification Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	al No:					P-1 Item Nomendature:	.e.					
AIR	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	NT / 2 / Modification	of Aircraft					CH-47 ICH AD	CH-47 ICH ADVANCE PROCUREMENT (AA0254)	ENT (AA0254)		
Program Elements for Code B Items:	:8:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less PY Adv Proc												
Plus CY Adv Proc						26.2	38.0	55.6	55.6	55.1	424.8	655.3
Net Proc (P-1)						26.2	38.0	55.6	9:22	55.1	424.8	655.3
Initial Spares												
Total Proc Cost						26.2	38.0	55.6	55.6	55.1	424.8	655.3
Flyaway U/C												
Wpn Sys Proc U/C												

The improved Cargo Helicopter (ICH) will be a modification to the current CH-47D helicopter to extend airframe service life, introduce an open electronic architecture that A service life extension program, the ICH will sustain the aging CH-47D fleet and bridge the gap until the development of a follow-on aircraft. It will be fielded as a direct is compatible with the Army XXI digitized battlefield, and reduce Operating ad Support (O&S) cost. This heavy lift helicopter program will be based on a remanufacture approach. The airframe will be rebuilt, mission capability improved, and vibrations reduced through airframe stiffening to provide for long term O&S cost reductions. Continued support, coverage, and sustainment of Maneuver, Fire Support, Air Defense, and Survivability mission areas will be provided by the ICH. Its mission is transportation of ground forces, class III/class V supplies, and battle critical cargo in support of all future contingencies.

FY 01 funds Advanced Procurement to support deliveries of avionics and airframe components. Long Lead is required to provide funding for those parts, tooling, test equipment, and materiels which are lead time critical to the end item modification. Long lead funding is required to preserve the planned helicopter delivery schedule.

replacement for 300 of the CH-47D fleet.

Advance Procurement Requirements Analysis-Funding (P-10A)	rements	: Analys	sis-Fund	ing (P-10	<u> </u>	First System Award Date:	ward Date:	-	First System Completion Date:	npletion Date:		Date:	February 2000	
Appropriation / Budget Activity/Serial No:							P-1 Line Item No	P-1 Line Item Nomendature / Weapon System:	apon System:					
AIRCRAFT	PROCUREN	1ENT / 2 / Mc	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	rcraft					CH-47 ICH	CH-47 ICH ADVANCE PROCUREMENT (AA0254)	OCUREMENT (	AA0254)		
		_						(\$ in Millions)	lions)					
	LTd LTd	When Rqd	Dr Vre	1997	1998	1999	0002	2004	2002	2003	2004	2005	To	Total
End Item Orientity:	(som)	(som)	SILL	1881	1990	6661	2000	1002	7007	2002	2004	5002		lota
End item Quantity: Avionics Airframe	13	41						15.4	23.8	35.2	35.9 19.7	35.8 19.3	279.3 145.5	425.4
	·													
T								6 96	c a	и и	r r	л 4	2 7 C Z	2 2 3
lotal Advance Procurement								7.07	30.0	0 0	23.0	03.	424.0	6.660
Description:														

Advance Procurement Requirements Analysis-Budget Justification (P-10B)	rement	s Analysis	-Budget Ju	ustifica	tion (P-1	10B)			Date: Februa	February 2000
Appropriation / Budget Activity/Serial No:					<u> </u>	P-1 Line Item Nomendature / Weapon System:	e / Weapon System:			
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	UREMENT /	2 / Modification o	fAircraft				CH-47 ICH AD	CH-47 ICH ADVANCE PROCUREMENT (AA0254)	MENT (AA0254)	
							(\$ in Millions)			
		Quantity		L		2000			2001	
	PLT (mos)	Per Assembly	Unit	L	Ofy.	Contract Forecast Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request
End Item									!	
Avionics Airframe	13		<del>+ + + + + + + + + + + + + + + + + + + </del>	4.0				1 1	Nov 00 Nov 00	
				<u>w </u>						
										2
					,					
Total Advance Procurement										
Description:										
									3	

Advance Procurement Requirements Analysis-Present Value Analysis (P-10C)	rements A	nalysis-Pr	esent Valu	le Analysi	s (P-10C)					Date:	February 2000	
Appropriation / Budget Activity/Serial No:					P-1 Line Item No	P-1 Line Item Nomendature / Weapon System:	pon System:					
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	UREMENT / 2 / Mo	dification of Aircn	aft				CH-47	CH ADVANCE PI	CH-47 ICH ADVANCE PROCUREMENT (AA0254)	AA0254)		
						(\$ in N	(\$ in Millions)					
	Pr Yrs	1997	1998	1999	2000	2001	2002	2003	2004	2005	То Сотр	Total
Proposal w/o AP Then Year Cost Constant Year Cost Present Value AP Proposal Then Year Cost Constant Year Cost Present Value AP Savings (Difference) Then Year Cost Constant Year Cost Present Value												
Remarks: Contract not priced without advanced procurement.	without ad	vanced pro	ocurement.									

		Exhibit P-40, Budget	0, Budget It	em Justifica	Item Justification Sheet			Date:		February 2000		
Appropriation / Budget Activity/Serial No:	al No:					P-1 Item Nomenclature:	ē.					
AIR	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	ENT / 2 / Modification	of Aircraft					UTILITY/CAF	UTILITY/CARGO AIRPLANE MODS (AA0270)	3S (AA0270)		
Program Elements for Code B Items:	ıs:			Code:	Other Related Program Elements:	am Elements:						
				∢								
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	8.5	2.0	6.3	10.0	9.6	11.9	16.0	15.4	6.6	9.9	140.0	238.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	8.5	2.0	6.3	10.0	9.6	11.9	16.0	15.4	6.6	6.6	140.0	238.2
Initial Spares												
Total Proc Cost	8.5	7.0	6.3	10.0	9.6	11.9	16.0	15.4	6.6	9.9	140.0	238.2
Flyaway U/C												
Wpn Sys Proc U/C												

Precision Landing System (JPALS) and Joint Tactical Radio System (JTRS) components. These modifications ensure continued worldwide deployment capability, and DESCRIPTION: This modification updates and modernizes the C-12, RC-12, UC-35, C-23, and C-26 aircraft communication, navigation, surveillance and safety equipment to current and evolving international standards. In addition it provides for the procurement and installation of military unique equipment such as Joint safe operations into the 21st Century.

aircraft delays and airspace exclusion are likely for aircraft not properly equipped. Upgrade of obsolete communication and navigation systems will enhance reliability requirements. In addition, equipment included in the modifications will enhance the safety of passengers and crew. The upgrade will also permit the Army fixed wing aircraft to operate in compliance with other existing and emerging regulations. During deployments in support of Desert Storm/Desert Shield/Provide Comfort, only selected aircraft with non-standard modifications were capable of being deployed to and within the theater. As requirements for new avionics equipment continue, JUSTIFICATION: The FY 01 funds will be used for communications, navigation, and surveillance equipment that is supportive of future Air Traffic Management and maintainability by employing commercial systems thereby improving C-12 availability for mission requirements.

	Exhibit P-40	Exhibit P-40M Budget Item Justification Sheet	m Justifica	tion Sheet			Date		February 2000		
Appropriation / Budget Activity/Serial No.		4		α	P-1 Item Nomenclature						
AIRCRAFI	AIRCRAFT PROCUREMENT / 27 Modification of Aircraft	or Aircraft					UIILII Y/CAF	UTILITYCARGO AIRPLANE MODS (AAUZ/U)	JS (AAUZ/U)		
Program Elements for Code B items			O e e e e e e e e e e e e e e e e e e e	Other Related Program Elements	n Elements						
Description		Fiscal Years									
OSIP NO. Clas	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
n Coc	Upgrade			(	;			(			
1-96-01-0612 Ope	Operational	15.5	10.0	9.6	11.9	16.0	15.4	6.6	6.6	140.0	238.1
Totals		15.5	10.0	9.6	11.9	16.0	15.4	6.6	:	9.9 140.0	238.1
Vandadatatatatatatatatatatatatatatatatata	* 10 100111111 101111 101111 - 101111 - 1011111 1011111111			***************************************	***************************************						
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distribution of the second community of the second com	· · · · · · · · · · · · · · · · · · ·										:
							THE REAL PROPERTY AND ADDRESS OF THE PARTY AND			***************************************	
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						ZICN	N IAI N	INDIVIDITAL MODIFICATION	ATION							oteO		February 2000	0006	
		ا پر	, , ,				0	0.40												
MODIFICATION TITLE: AVIORICS MODELS OF SYSTEMS AFFECTED:	✓		Avionics System Cockpit Opgrade 1-90-0 I-00 I.2 FFECTED: C-12C, F3, D1, D2, F1, F2, J, R; RC-12K, N, P, C	Cockp	ir Upg 2, F1, F2	rade 1 2, J, R;	-90-U	System Cockpit Upgrade 1-90-U 1-00 LZ C-12C, F3, D1, D2, F1, F2, J, R; RC-12K, N, P, Q; C-26; UC-35; C-23B,B+, RC-7	l; C-26; I	UC-35; (	C-23B,E	7+, RC-7								
DESCRIPTION / JUSTIFICATION:	TIFICATION	j																		
This effort will modernize 6 types of Fixed Wing aircraft communications, navigation, surveillance, and safety equipment to current	nodernize	e 6 typ	es of F	-ixed \	Wing a	aircraft :- ::	Comm	nunicat	ions, r	aviga	tion, s	urveill	ance, a	and se	fety e	auipmer	nt to cu	irrent		
international requirements, enhance fleet standardization, allow worldwide deployments and continued safe operations into the 21st Century. As currently equipped, the aircraft will not be suitable for worldwide deployment nor capable of using modern navigation and air traffic control	juirement Jipped, th	ts, enr ne airc	raft wil	leet st I not b	andar e suita	dizatic able fc	in, allo ir work	w work dwide o	awide deploy	deplo) ment r	ments or cal	s and o	continu of usin	Jed sa	te ope Iern na	rations i ivigatior	nto the 1 and a	e zast ( iir traffi	c contra	<u>. ₽</u>
facilities. The following equipment is included in this upgrade: Flight Management System, Displays, Terrain Awareness Warning System, 8 334Hz radios, ADY 100 Mode Superals, Safettite Command (SATCOM), Traffic Collision Avoidance System II Elight data recorder, data	ollowing e	equipn	nent is	includ	ed in Safel	this up	grade	Flight	Mana	gemer	nt Syst	tem, D	isplay.	s, Terr	ain Av	/arenes	s Warr	yS guit	rstem,	
ink capability, and Communications Management Unit. The preceding components reflect critically needed items. However, Air Traffic	ind Comr	nunic	ations	yı ave Manaç	) Jemen	t Unit.	The	oreced		npone	ents re	flect c	ritically	/ need	ysterii ed iter	ns. How	r data i /ever, /	Air Tra	ffic	15
Management and DOD Navigation Warfare requirements are evolving and will require additional systems in the near future. The kit quantities reflected on the next page represent a wide variety of avionics kits with different mixes each fiscal year. Additionally, kit configurations vary based on the aircraft that they will be installed on. Consequently, kit and installation unit cost will vary significantly from year to year.	nd DOD I next pag rcraft that	Vaviga je repi t they	ation M resent will be	/arfare a wide install	requi varie	remer ty of a . Con	its are ivionic seque	evolvir s kits w ntly, kit	ith diff and ir	will re ferent nstalla	quire mixes tion ur	additic each iit cos	onal sy fiscal t will v	rstems year. ary sig	in the Additic Inificar	ements are evolving and will require additional systems in the near future. The kit of avionics kits with different mixes each fiscal year. Additionally, kit configuration Consequently, kit and installation unit cost will vary significantly from year to year.	ture. T it confiț ı year t	he kit o guratio o year	quantiiti ns var	ies y
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	TUS / MAJO	OR DEV	/ELOPIV	ENT M	LESTO	NES:														
Development is not required for Avionics System Cockpit Upgrade.	not requii	red for	. Avion	ics Sy	stem (	Cockp	it Upgı	ade.												
,																				
Installation Schedule:	, ,		4000		$\mid$		7000 X		-		200		F		2000			2000	5	
	- Totale	-	- 6	, -	4	-	6	7	4	-	7	7	\ \	-  -	2002	7	+	-	3	1
Inputs	228	-	က	2	. 2	$\frac{1}{1}$	2	9	-	+	2 2	2 2	5	9		1	_	1=	12	12
Outputs	228		က	2	5		5	9	7		2	5	5	9	10	10 10	7	11	12	12
				-				-				-								
	-	FY 2004	- 1	+	-	FY 2005	- 1	$\frac{1}{1}$	<u> </u>	FY 2006	-	-	<u>ا</u> ا	FY 2007			<u>P</u>		Ĕ	Totals
		7	е	4	-	2	8	4	-	7	8	4	-	2	8		Complete			
Inputs	4	80	ω	ω	ω	4	4	4		4	4	വ		7	7	က	284			734
Outputs	4	8	8	8	8	14	14	14	_	4	4	5		2	2	က	7			734
METHOD OF IMPLEMENTATION:	<b>JENTATION</b>					LSINIMO	RATIVE	ADMINISTRATIVE LEADTIME:	ME	က	Months	ths	PRO	DUCTION	PRODUCTION LEADTIME:	OTIME:	e e	Month		
Contract Dates:		Œ	FY 1999	Jai	Jan 99		Ŧ	FY 2000	Jan 00	8			FY 2001	001	Jan 01	_				
Delivery Date:		Œ	FY 1999	Me	Mar 99		₹	FY 2000	Mar 00	00			FY 2001	001	Mar01	_				

Millions)  Millions)  Curring and Prior FY 1998  Curring Caty \$ C	stem Cockpit Upgra \$ 0.1 0.1	FY 2001  FY 2001  Gty \$	0612 FY 2002 Qty \$										
runing	Aty \$ \$ 2.5	7 200	7 200										Γ
Curring 228 13.9 13 8.6 Curring port 13.9 1.3	Aty \$ 5.5 and \$ 7.5 and \$	5	7 200										
ng rders 13.9 13 8.6 port port 1.3 228 Kits 228 Kits 1.6 13 1.3	3.6 18 7.5 0.1	2			FY 2003	FY 2004	004	FY 2005	35	TC		TOTAL	
ng rders boott 228 Kits 228 Kits 1.6 13 1.3	6. 81		~	Q Q	& ∴	Oty	\$	Qty	\$	Qty	\$	Qty	ક્ર
rug ng ng ng ng ng ng ng ng ng ng ng ng ng	6. Z.			-									
ruders 0.1 poort 0.1 228 Kits 228 13.9 13 8.6 11.3	9. 1.												
rouring ing orders 0.1 boott 1.3 1.3			36	14.5	42 13.5	5 28	8.4	20	8.2	304	123.4	734	208.5
ing orders 0.1 boort 0.1 1.3 1.3			,										
ng orders 0.1 bport 1.6 1.3 1.3													
port 0.1		·····			********								
port 0.1		***************************************											
port 228 Kits 228 1.6 13 1.3		0.1	**********	0.1	0.1	_	0.1		0.1	,,,,,	9.0		6.
port 228 Kits 228 1.6 13 1.3													
port 228 Kits 228 1.6 13 1.3					**********								
28 Kits 228 1.6 13 1.3			****										
28 Kits 228 1.6 13 1.3													
28 Kits 228 1.6 13 1.3												********	
228 Kits 228 1.6 13 1.3					*************								
28 Kits 228 1.6 13 1.3													
228 Kits 228 1.6 13 1.3					.,						<u>.</u> .	-,	
228 Kits 228 1.6 13									_				
228 Kits 228 1.6 13 1.3			*****										
5 2 3												228	1.6
2					<b>,,,,,,,</b>							13	1.3
	ç											ó	0
FY 2001 Eqpt 15 Kits FY 2002 Eqpt 36 Kits FY 2003 Eqpt 42 kits	0.2 8L											- <del>1</del>	, t
FY 2002 Eqpt 36 Kits FY 2003 Eqpt 42 Kits		7.7								******		2 (	7.
FY 2003 Eqpt 42 kits			36	4.								99	1.4
					1.	1.8		•••••		********		42	8.
FY 2004 Eqpt 28 kits						28	1.5					28	1.5
FY 2005 Eqpt 50 kits								22	1.5			20	1.5
TC Equip 304 Kits								**********	,	304	16.0	304	16.0
228 1.6 13		15 1.2	36	1.4	42 1.	1.8 28	1.5	20	1.5	304	16.0	734	28.3
nt Cost	10.0	11.9		16.0	15.4	4.	6.6		6.6		140.0		238.1

Budge

								Date:				
		Exhibit P-40, Budget I		tem Justification Sheet	ation Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	ial No:					P-1 Item Nomenclature:	re:					
AIR	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	NT / 2 / Modification	of Aircraft					ō	OH-58 MODS (AA0400)	6		
Program Elements for Code B Items:	ns:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	321.3	1.2	2.0	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.7	326.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	321.3	1.2	2.0	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.7	326.8
Initial Spares	1.2											1.2
Total Proc Cost	322.5	1.2	0.7	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.7	328.0
Flyaway U/C												
Wpn Sys Proc U/C												
DESCRIPTION:												

OH-58C is an upgraded OH-58A model with a more powerful transmission, navigational upgrade and instrumentation. The OH-58A/C program consists of incorporation command and control. This is a single pilot aircraft with provisions for a second pilot and the capability to carry two passengers or cargo in the rear cargo area. The The OH-58 A&C model helicopters are low silhouette, single rotor helicopter powered by a single gas turbine engine (T63-A-720) used for observation, scout, and of the SINCGARS-VHF-FM radio, Combat Lighting for Night Vision, an External 3 Micron Engine Oil Filter and Global Positioning Systems.

## JUSTIFICATION:

portion of initial entry pilots training for Army Aviation, to perform FORSCOM training exercises and to equip the National Guard's Counter Drug Reconnaissance, Aerial addition to operational improvement modifications required to meet mission requirements until final phaseout. Failure to provide funding will result in the degradation of Interdiction and Detection mission. FY 01 funding will be used to install modification kits procured in prior years. Funding is also required for safety modifications, in The OH-58 A&C fleet will be 389 aircraft through FY01 and range from 335 down to 298 through FY25. It provides for the major source to develop the combat skills the aircraft and mission, impacting readiness and combat support capability.

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		:						Date:				
		Exhibit P-40, Budget	10, Budget It	em Justifica	Item Justification Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	rial No:					P-1 Item Nomenclature:	rre:					
AIF	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	ENT / 2 / Modification	n of Aircraft					AIRCRAFT	AIRCRAFT LONG RANGE MODS (AA0560)	S (AA0560)		
Program Elements for Code B Items:	ms:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	6.1	6.0	0.8	1.1	0.8	0.8	2.0	0.7	0.8	8.0	4.0	17.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	6.1	6.0	0.8	1.1	0.8	0.8	7.0	0.7	8.0	8'0	4.0	17.5
Initial Spares												
Total Proc Cost	6.1	0.9	0.8	1.1	0.8	0.8	0.7	0.7	0.8	8.0	4.0	17.5
Flyaway U/C												
Won Svs Proc U/C												

capability for worldwide deployments. In addition, the C-20 and C-37 aircraft will receive additional operational capability with the installation of Joint Precision Landing DESCRIPTION: This modification updates and modernizes the C-20F, C-20E and C-37 aircraft communications, and navigation equipment, enhancing the aircraft's Systems (JPALS) and Joint Tactical Radio Systems (JTRS). These aircraft support the Army's executive flight detachment at the three star and above level. JUSTIFICATION: FY 01 funds will be used for upgrading C-20F Global Positioning Systems (GPS) and installation of communications equipment needed to support the crew in meeting the demands of the future air navigation system. Funds will be used to meet future avionics requirements resulting from worldwide navigation transition to Global Positioning System (GPS) enroute and approach systems, and Chairman of the Joint Chief of Staff Master Navigation Plan requirements.

		Exhibit P-40, Budget		Item Justification Sheet	ation Sheet			Date:		February 2000		
Appropriation / Budget Activity/Serial No:	ial No:					P-1 Item Nomenclature:	ıre:					
AIR	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	ENT / 2 / Modification	of Aircraft					_	LONGBOW (AA6670)			
Program Elements for Code B Items:	ns:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	535.3	389.2	490.9	610.1	789.2	744.9	844.9	868.7	796.0	452.4	841.6	7363.2
Less PY Adv Proc	117.0	16.8	30.4	36.9	43.2	35.4	35.0	29.5	29.7	14.2	61.8	449.9
Plus CY Adv Proc	133.8	30.4	36.9	43.2	35.4	35.0	29.5	29.7	14.2	43.1	18.7	449.9
Net Proc (P-1)	552.1	402.8	497.4	616.4	781.4	744.5	839.4	868.9	780.5	481.3	798.5	7363.2
Initial Spares		7.4	8.1	16.8	8.1	13.1	19.8	26.6	15.5	15.2	49.8	180.4
Total Proc Cost	552.1	410.2	505.5	633.2	789.5	757.6	859.2	895.5	796.0	496.5	848.3	7543.6
Flyaway U/C												
Wpn Sys Proc U/C												

Longbow Weapon System will provide the AH-64 with automatic target detection, classification, prioritization and a true fire-and-forget engagement capability, greatly Those AH-64D aircraft fielded without the FCR mission kits will have the T700-GE-701 engines, but can accept the FCR mission kit with T700-GE-701C engines. The DESCRIPTION: The Longbow Weapon System (AH-64D) consists of a modified AH-64 airframe, a Fire Control Radar (FCR) mission kit and a Longbow HELLFIRE missile. Three hundred twenty AH-64Ds will incorporate the General Electric T700-GE-701C engines for improved performance when carrying the FCR mission kits. increasing weapon system effectiveness and aircraft survivability. The weapon system will be employable day or night, in adverse weather and in obscurants. The weapon system will effectively engage and destroy advanced threat armor on the AirLand Battlefield of the late 1990s and into the next century. To be effective and survive on this future battlefield, the attack helicopter team will rapidly engage multiple targets with minimum exposure time, and deploy a system that is inherently resistant to threat countermeasures (CMs).

JUSTIFICATION:

FY 01 funds buy 60 aircraft/44 FCRs, including associated support equipment, tooling, GFE, and training devices. Funding contains digitization requirements, including FY96. A Multi-Year II Contract (FY01-FY05) will be signed in FY 00. Airframe quantities and funding reflect a multi-year (MY) scenario. Multiyear contracts for the FCR procurement of Digital Map capability required for Force XXI Battle Command Bridage & below (FBCB2) situational awareness (\$12.1M in FY01). The 18 October 95 Acquisition Decision Memorandum authorized Longbow Apache to proceed into production and award of single year contract not to exceed quantity of 18 aircraft in mission kit were signed in Nov 97. Quantities and funding reflect this multiyear scenario. 530 AH-64A Apaches will be remanufactured to the common AH-64D configuration with 320 being equipped with the FCR kits and 701C engines.

Initial spares includes FCR components

					75.7		37.4	3.1	
				Total	5.675.7		1,23	6,913.1	
				$\dashv$	8.		377.0 1,237.4	779.8	
				Σ	402.8		37	77.	
					9		τċ	Ψ.	
February 2000				FY 2005	410.6		27.5	438.1	
Febr	70)			ш	6			က	
	LONGBOW (AA6670)			FY 2004	728.9	A COMPANY	37.4	766.3	
	LONGBO			_				0.1	
				FY 2003	751.4		87.8	839.2	
Calc									
				FY 2002	697.6		112.3	809.9	
	e.			FY 2					
	omenclatu	ر س		001	596.8		112.6	709.4	
	P-1 Item Nomenclature	n Element		FY 2001			•	•	
heet	α	Other Related Program Elements			631 1		114.9	746.0	
tion S		her Relate		FY 2000	٣	<b>)</b>	-	7	
ifica			-}	$\vdash$	475.0		98.3	573.3	
m Jus		Code		FY 1999	4			5	
jet Itei					981.5		9.6	<u>.</u>	
Budg	ircraft		Fiscal Years	FY 1998	86	3	269.6	1,251.1	
-40M	ation of A		芷						
Exhibit P-40M Budget Item Justification Sheet	2 / Modific						:		
EX	EMENT /			tion	<u> </u>	5	<u>a</u>		
	PROCUR			Classification	ds Operational		Operational		
	/Serial No. AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	sms		Cla	spol	유		- The state of the	
	Activity/S <sub>1</sub>	Code B Ite			iche N	bow F			
	/ Budget	nents for (	tion	0	w Apa	Long	:		
	Appropriation / Budget Activity/Serial No. Appropriation / Budget Activity/Serial No.	Program Elements for Code B Items	Description	OSIP NO.	Longbow Apache Mods	Apache Longbow FCR	Y.	Totals	
	Apr	F.	ŏ	Ó	ľo V	¥	Ż.	ĭ	

								Date:				
		Exhibit P-40, Budget		em Justific	Item Justification Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	nal No:					P-1 Item Nomenclature:	ire:					
AIRCR	AIRCRAFT PROCUREMENT /Modification of Aircraft / 12105682	/Modification of Aircr	raft / 12105682		***			•	Apache Longbow Mods	6		
Program Elements for Code B Items:	ms:			Code:	Other Related Program Elements:	am Elements:			; 			
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	24	24	44	99	74	09	99	72	7.5	28		530
Gross Cost	332.8	282.8	365.9	474.9	631.1	596.8	697.6	751.4	728.9	410.6	402.8	5675.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	332.8	282.8	365.9	474.9	631.1	596.8	697.6	751.4	728.9	410.6	402.8	5675.6
Initial Spares												
Total Proc Cost	332.8	282.8	365.9	474.9	631.1	596.8	9.769	751.4	728.9	410.6	402.8	5675.6
Flyaway U/C	15.9	9.1	6.5	6.2	6.5	7.7	7.8	7.9	8.5	12.8		8.6
Wpn Sys Proc U/C	17.0	12.0	8.9	9.7	9.0	10.4	11.0	10.8	10.5	15.2		11.3

aircraft fielded without the FCR mission kits will have the T700-GE-701 engines, but can accept the FCR mission kit with T700-GE-701C engines. The Longbow Weapon System will provide the AH-64 with automatic target detection, classification, prioritization and a true fire-and-forget engagement capability, greatly increasing weapon hundred twenty AH-64Ds will incorporate the General Electric T700-GE-701C engines for improved performance when carrying the FCR mission kits. Those AH-64D effectively engage and destroy advanced threat armor on the Air Land Battlefield of the late 1990s and into the next century. To be effective and survive on this future system effectiveness and aircraft survivability. The weapon system will be employable day or night, in adverse weather and in obscurants. The weapon system will The Longbow Weapon System (AH-64D) consists of a modified AH-64 airframe, a Fire Control Radar (FCR) mission kit and a Longbow HELLFIRE missile. Three battlefield, the attack helicopter team will rapidly engage multiple targets with minimum exposure time, and deploy a system that is inherently resistant to threat countermeasures (CMs). DESCRIPTION

## JUSTIFICATION:

FY 01 funds buy 60 aircraft, including associated support equipment, tooling, GFE, and training. 530 AH-64A Apaches will be remanufactured to the common AH-64D configuration with 320 being equipped with the FCR kits and 701C engines. FY01 funding also buys Digital Map capability required for Force XXI Battle Command Bridage & below (FBCB2) situational awareness (\$12.1M).

<sup>\*</sup>Unit costs are annual procurement unit costs including advanced procurement.

Exhibit P-43,	Device Justification
	Training [
	and
	Simulator a

									Date:		
		Exhibit	libit P-43, Simulator and Training Device Justification	ulator and	1 Training	Device J	ustificatio	Ē		February 2000	
Appropriation / Budget Activity/Serial No.	ctivity/Serial No.			P-1 Item Nomenclature	arre			Other Related Program Elements:	am Elements:		IOC Date:
AIRCRAFT PRC	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	f Aircraft		٥	LONGBOW (AA6670)	(					
Training Device by Type	· Site	Delivery Date	Ready for Training Date	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
LCT	Ft. Hood/Multiple	Sep-99	Oct-99	20753	10351	29795	32475	50544	119851	79120	
LCTS	Ft. Hood	Sep-00	Oct-00		23248						
MAVWEST(L-7) Ft. Eustis	Ft. Eustis	Sep-99	Oct-99	25507		26941	14392	28784			
AEDST(L-6)	Ft. Eustis	Sep-99	Oct-99	30799	5745	18210	0006	37408			
TESS	CTC/Home Station	99-Inc	Aug-99	4583	7502	11212	22288	9800	4600	400	400
CLS					5038	4083	6430	10019	11924	14061	14370
Total				81642	51884	90241	84585	136555	136375	93581	14770

ground component provides a real time casualty assesstment for force-on-force collective training at the Combat Training Centers and at home station. Funding will provide for 530 TESS Air operational battalion at selected MACOM locations (based upon Longbow Apache unit density), four at the USA Aviation Center (USAAVNC), and two at the Western Area Aviation Training Site (WAATS). The LCT will be deployed to meet the Aircraft Configuration of the gaining unit. Development and production of the LCT will precede development of the maintainer devices TRAINING SYSTEM DESCRIPTION: The Longbow Training Device Suite (TDS) includes the following: Longbow Crew Trainer (LCT), FY 96 start year (37 total through POM, 5 in EPP for TESS is composed of a TESS air component (consisting of an A & B kit), and a TESS ground component. TESS Air A kit consists of software and tactical displays and controls embedded on the aircraft to provide a cockpit interface to the "Plug and Play" TESS Air B kit. The TESS air component will simulate all on-board weapons engagements, and together with the TESS A kits, and 8 Bn sets consisting of 24 TESS Air B kits and 1 TESS ground component. The MAVWEST and AEDST are maintainer training devices for the US Aviation Logistics School Multiplex Avionics, Visionics, Weapons and Electrical Systems Trainer (MAVWEST), FY 97 start year (10 total): and Airframe, Engine, and Drivetrain Systems Trainer (AEDST), FY 97 networkable through Distributed Interactive Simulation (DIS) protocols and interfaces and will be capable of interoperability with the Combined Arms Tactical Trainer (CATT) systems. a total of 42). Longbow Collective Training System (LCTS), FY 99 start year (1 total): Tactical Engagement Simulation System (TESS) "A" and "B" Kit, FY 98 start year (1/aircraft): start year (12 total). The comerstone of the TDS is the LCT which is a dual-seat, pilot and co-pilot gunner (CPG) sustainment training device. The basis of issue is one device per and will establish the technical baseline for the MAVWEST. The LCT will provide a transportable training and sustainment capability to the field. The LCT and the LCTS will be (USAAL), Ft. Eustis.

								Doto:				
		Exhibit P-4	Exhibit P-40, Budget Item Justification Sheet	em Justifica	ation Sheet			, date.		February 2000		
Appropriation / Budget Activity/Serial No:	ial No:					P-1 Item Nomenclature:	re:					
AIRCR/	AIRCRAFT PROCUREMENT /Modification of Aircraft / 12105682	/Modification of Airc	aft / 12105682					•	Apache Longbow FCR			
Program Elements for Code B Items:	JS:		į	Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	10	10	21	40	45	44	57	14			62	320
Gross Cost	85.5	9.68	94.6	98.3	114.9	112.6	112.3	87.8	37.4	27.5	377.0	1237.5
Less PY Adv Proc			,									
Plus CY Adv Proc												
Net Proc (P-1)	85.5	89.6	94.6	98.3	114.9	112.6	112.3	87.8	37.4	27.5	377.0	1237.5
Initial Spares												
Total Proc Cost	85.5	89.6	94.6	98.3	114.9	112.6	112.3	87.8	37.4	27.5	377.0	1237.5
Flyaway U/C	12.7	8.5	4.8	2.7	2.8	2.8	2.1	6.3			5.0	4.4
Wpn Sys Proc U/C	12.7	10.0	4.8	2.7	2.8	2.8	2.1	6.3			5.0	4.4

aircraft fielded without the FCR mission kits will have the T700-GE-701 engines installed, but can accept the FCR mission kit with T700-GE-701C engines. The Longbow weapon system effectiveness and aircraft survivability. The weapon system will be employable day or night, in adverse weather and in obscurants. The weapon system will effectively engage and destroy advanced threat armor on the AirLand Battlefield of the late 1990s and into the next century. To be effective and survive on this future Weapon System will provide the AH-64 with automatic target detection, classification, prioritization and a true fire-and-forget engagement capability, greatly increasing hundred twenty AH-64Ds will incorporate the General Electric T700-GE-701C engines for improved performance when carrying the FCR mission kits. Those AH-64D The Longbow Weapon System (AH-64D) consists of a modified AH-64 airframe, a Fire Control Radar (FCR) mission kit and a Longbow HELLFIRE missile. Three battlefield, the attack helicopter team will rapidly engage multiple targets with minimum exposure time, and deploy a system that is inherently resistant to threat countermeasures (CMs). DESCRIPTION

## JUSTIFICATION:

FY 01 funds buy 44 FCRs. FCR quantities & funding reflect multiyear procurements for FY 98-02. 530 AH-64A Apaches will be remanufactured to the common AH-64D \*Unit costs are annual procurement unit costs including advanced procurement. configuration with 320 being equipped with the FCR kits and 701C engines.

					INDIVID	UAL MOI	INDIVIDUAL MODIFICATION	Z						Date	ite		February 2000	000	
MODIFICATION TITLE (Cont):		Long	bow Ap	ache N	Longbow Apache Mods NA														
FINANCIAL PLAN: (\$ in Millions)	FY 1998	Γ.																	
	and Prior	Ļ	FY 1999	$\vdash$	FY 2000	F	FY 2001	FY 2002	002	FY 2003	203	FY 2004	04	FY 2005	905	5		TOTAL	
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RDT&E PROCUREMENT					<b>.</b>							?		8				Ç	
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Recurring Other Element	7 6	002.2 170 G	455	λ. d	304.0	0 1	323.3		425.6		389.2		380.9		187.4				2937.6
Training Devices	7 7	145.0			. S		84.6		136.5		136.4		0.7.0		- 24		93.0		819.7
Other Support	. u)	55.7		39.3	6	90.2	73.3		71.8		76.6		51.6		51.2	_	147.8		657.5
Second Gen FLIR					*****								65.0		85.1		93.3	***************************************	243.4
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TC Equip-Kits				+					1										
Total Installment		_		-								i							
Total Procurement Cost	86	981.5	4.1	475.0	631.1	+-	596.8		9.769		751.4		728.9		410.6	4	402.8	4,	5675.7

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MODIFICATION TITLE (Cont):	Ā	Apache Longbow FCR NA	ow FCR	<b> </b> 												
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	and Prior	FY 1999	FY 2000	000	FY 2001	FY	FY 2002	FY 2003		FY 2004	FY 2005	5005	TC		TOTAL	ابرا
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Quantity	4	40	45		4	22		14		****			62		320	
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	+	†					T		NITIA	INITIAL	$\dag$	${}$			$\coprod$					+									
	$\frac{1}{1}$	T				L	+		NE	ا ا	t	t			L		T	l	l	t	l	l	_						
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	H					Ц	$\vdash$		INITIAL	الوا	H	H			Ц	П	П			H			_						
	1	1					$\dashv$		REORDER	Ser	┨	$\dashv$			_		1			┥			_	ı	ļ	ı	ı	ı	7

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								Date:				
- C		Exhibit P-4	Exhibit P-40, Budget It	em Justification Sheet	tion Sheet					February 2000		
Appropriation / Budget Activity/Serial Ivo:	I No:					P-1 Item Nomenclature:	rre:					
AIRC	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	NT / 2 / Modification	of Aircraft					LONGB	LONGBOW (ADV PROC) (AA6670)	46670)		
Program Elements for Code B Items:				Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qtv												
Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0:0
Less PY Adv Proc												
Phis CY Adv Proc	133.8	30.4	36.9	43.2	35.4	35.0	29.5	29.7	14.2	43.1	18.7	449.9
Net Proc (P-1)	133.8	30.4	36.9	43.2	35.4	35.0	29.5	29.7	14.2	43.1	18.7	449.9
Initial Spares												
Total Proc Cost	133.8	30.4	36.9	43.2	35.4	35.0	29.5	29.7	14.2	43.1	18.7	449.9
Flyaway U/C												
Wpn Sys Proc U/C												

#### DESCRIPTION:

effectively integrate the Fire Control Radar (FCR) and radar frequency (RF) missile. It provides an adverse weather fire-and-forget missile capability that increases the capability of the crew and provide increased survivability and lethality while complying with Congressional direction to standardize the fleet to a common configuration. lethality and survivability. The Longbow Apache also retains the capability to fire the Semi-Active Laser Hellfire. The design enhancements increase operational The Longbow program encompasses modifications to 530 AH-64A Apaches as well as upgrades to the aircraft systems for the AH-64D series to efficiently and

## JUSTIFICATION:

Five hundred thirty (530) AH-64A Apaches will be remanufactured to the common AH-64D configuration with 320 being equipped with the FCR kits and 701C engines. FY 01 funds Advance Procurement to support deliveries of airframes and FCRs. Long Lead funding is required to provide funding for those parts, tooling, test equipment, and materials which are lead time critical to the end item. Long lead funding is required to preserve the planned helicopter delivery schedule.

Advance Procurement Requirements Analysis-Funding (P-10A)	ement	s Analy	'sis-Fund	ling (P-10			agia Dale.		riist oysterii completion care.				February 2000	
Appropriation / Budget Activity/Serial No:							P-1 Line Item N	P-1 Line Item Nomendature / Weapon System:	feapon System:					
								(\$ ID Millions)	illions)					
	PLT (mos)	When Rqd (mos)	Pr Yrs	FY 97	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	To	Total
End Item Quantity: Aircraft FCR					44	66 40	74 45	60 44	66 57	72	72	28	62	530 320
Airframe GFE - FCR Kit	30	30 N/A 30 29	81.6	25.1	26.4	32.2	24.4	26.4 8.6	29.5	29.7	14.2	43.1	18.7	289.5 160.4
Total Advance Procurement			133.8	30.4	36.9	43.2	35.4	35.0	29.5	29.7	14.2	43.1	18.7	449.9
Description:														

Contract   Contract	Advance Procurement Requirements Analysis-Budget Justification (P-10B)	rement	s Analysis-F	3udget Justi	ification (P-	10B)			Date: Februar	February 2000
PLT (mos) A (m	Appropriation / Budget Activity/Serial No:			,		-1 Line Item Nomenclature	/ Weapon System:			
Nance Procurement  The period (mos) A	AIRCRAFT PROC	SUREMENT	/2/Modification of A	urcraft			LONGB	OW (ADV PROC) (A	A6670)	
Nance Procurement  SR Kit  Nance Procurement  iption: Multiyear airframe contract tuitiyear FCR contract awarded Not							(\$ in Millions)			
Nance Procurement  SR Kit 30 Con ription: Multiyear airframe contract fultiyear FCR contract awarded Nor			Quantify			2000			2001	
Nance Procurement  iption: Multiyear airframe contract lultiyear FCR contract awarded Nor		PLT (mos)		Unit	O.	Contract Forecast Date	Total Cost Request	Ąσ	Contract Forecast Date	Total Cost Request
Procurement  30 Coo 30 Coo 1. Multiyear airframe contract 2. See FCR contract awarded Nove	End Item Airframe	30	Various Components		1	Dec 99				26.4
airframe contract	GFE - FCR Kit	30	Various Components	N/A	44	Nov 99				8.6
airframe contract										
Description: Multiyear airframe contract awarded Aug 96. Above "Contract Forecast Date" for airframe represents "Funding Action" dates for Lots VI and VII.  VII. Multiyear FCR contract awarded Nov 97. Above "Contract Forecast Date" represents "Funding Action" dates for Lots VI and VII.	Total Advance Procurement						35.4			35.0
	Description: Multiyear airfram VII. Multiyear FCR contract av	ne contr	act awarded Nov 97. Abo	Aug 96. Abo ve "Contract	we "Contract Forecast Da	Forecast Date" te" represents "F	for airframe represunding Action" da	sents "Fundi	ng Action" dates t	for Lots VI and

Exhibit P-40, Budget Item Justification Sheet
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								Date:				
		Exhibit P-4	Exhibit P-40, Budget Item Justification Sheet	em Justifica	ation Sheet			:		February 2000		
Appropriation / Budget Activity/Serial No:	nal No:					P-1 Item Nomenclature:	re:					
AIF	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	ENT / 2 / Modification	of Aircraft					n	UH-1 MODS (AB0602)	_		
Program Elements for Code B Items:	ms:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	338.9	6.2	2.6	3.8	4.3	4.3	3.2	3.2	3.4	3.4	0.0	373.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	338.9	6.2	2.6	3.8	4.3	4.3	3.2	3.2	3.4	3.4	0.0	373.4
Initial Spares												
Total Proc Cost	338.9	6.2	2.6	3.8	4.3	4.3	3.2	3.2	3.4	3.4	0.0	373.4
Flyaway U/C												
Wpn Svs Proc U/C												

DESCRIPTION: The UH-1 helicopter is used for transportation of personnnel, equipment and supplies, command & control, and medical evacuation. The UH-1 requires sustainment upgrades to ensure that it can operate on the modern battlefield and be logistically supportable through the year 2010. There are two models, the UH-1H and the UH-1V (MEDEVAC), most of which are located in National Guard units.

JUSTIFICATION: FY 01 funding will be used to procure and install navigation and communication avionics which are required because the currently installed avionics are quickly becoming logistically nonsupportable. Installation of modification kits is limited to those aircraft that will remain in the force structure through the year 2010.

99.5 164.4 0.0 873.7 99.5 164.4 0.0 873.7  romedical evacuation missions. It is insion of transporting troops and enves, and command and control. The UH-I and humanitarian assistance.  the Night Vision Goggles (NVG) Lighting the Night Vision Blackhawk helicopters.
edical evacuation missions. It is sion of transporting troops and s, and command and control. The UH-d humanitarian assistance.  Night Vision Goggles (NVG) Lighting  Consoles for Blackhawk helicopters.

February 2000

Exhibit P-40, Budget Item Justification Sheet

AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft

ppropriation / Budget Activity/Serial No:

UH-60 MODS (AA0480)

FY 2003

FY 2002

FY 2001

FY 2000

FY 1999

FY 1998

FY 1997

Prior Years

54.1

38.8

3.0

13.0

22.7

28.7

12.4

437.3

ess PY Adv Proc Plus CY Adv Proc

**Gross Cost** Proc Qty

54.1

38.8

3.0

13.0

22.7

28.7

12.4

437.3

Total Proc Cost

Flyaway U/C

54.1

38.8

3.0

13.0

22.7

28.7

12.4

437.3

Net Proc (P-1) Initial Spares

# DESCRIPTION:

Wpn Sys Proc U/C

designed to carry a crew of four plus eleven combat-equipped troops or an external load up to 9,000 pounds. It performs the equipment into combat, resupplying the troops while in combat and performing aeromedical evacuation, repositioning of reser 60A/L/Q is a major contributor across the continuum of military operations, i.e., civil disaster relief, drug intervention, national The UH-60A/L/Q is a twin engine, single rotor helicopter that is used in the performance of the air assault, air cavalry and aer

## JUSTIFICATION:

The modifications that will occur during FY01 are the procurement and installation of the Battery/Power Light Relocate and t Lower Console for approximately 1500 aircraft.

Note: Received \$1.2 million in the FY 99 Kosovo Supplemental for four airborne AN/ASC-15C(V)2 Command and Control (C.

Exhibit P-40	Exhibit P-40M Budget It	em Justific	Item Justification Sheet			Date		February 2000		
Appropriation / Budget Activity/Serial No.				P-1 Item Nomenclature	e e					
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	on of Aircraft					OH-6	UH-60 MODS (AA0480)	((	-	
Program Elements for Code B Items		Code	Other Related Program Elements	am Elements						
Description	Fiscal Years									
OSIP NO.   Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Ext Stores Sup Sys (ESSS) Aux Fuel Monitoring Sys (AFMS)	ing Sys (AFMS	3)								
1-94-01-1948 Safety	16.9	11.8	1.7	0.0	0.0	0.0	0.0	0.0	0.0	30.4
Halon Changeout (No P3a Set)										
1-92-01-1945 Legislative	0.1	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
Battery/Power Light Relocate										
1-94-01-1953 RM	0.3	2.0	5.5	2.6	9.1	3.4	0.0	0.0	0.0	22.9
NVG Lighting Lower Console										
1-90-01-1933 Operational	1.9	4.9	4.8	0.4	2.3	0.0	0.0	0.0	0.0	14.3
Major UH-60A/L Modification Program (No P3a Set)	3a Set)									
TBD Operational	0.0	0.0	0.0	0.0	0.0	40.3	73.5	140.5	0.0	254.3
UH-60Q Medevac (No P3a Set)										
TBD1 Operational	9.4	0.0	0.0	0.0	27.4	10.4	19.3	18.9	0.0	85.4
Fire Hawk (No P3a Set)										
TBD2 Operational	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
UH-60L Safety/Operational Modifications (No P3a Set)	P3a Set)									
TBD3 Safety/Operational	0.0	0.0	0.0	0.0	0.0	0.0	6.7	5.0	0.0	11.7
Minor Modification Programs (No P3a Set)										
TBD4 Operational	6.0	1.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
Totals	31.5	22.7	13.0	3.0	38.8	54.1	99.5	164.4	0.0	427.0

						<u>;</u>	;		ייטויאטי וושטאי שהטטייושיו								Caro			conduit coop	
MODIFICATION TITLE:	Ext &	Stores	Ext Stores Sup Sys	3ys (E	SSS)	Aux F	nel M	onitor	ing Sy	s (AF	.(SM:	ESSS) Aux Fuel Monitoring Sys (AFMS) 1-94-01-1948	1-194{	ω							
MODELS OF SYSTEMS AFFECTED: UH-60A/L Black Hawk	IS AFFEC	TED: (	JH-60A	'L Black	Hawk																
DESCRIPTION / JUSTIFICATION:	<b>IFICATIO</b>	ż																			
The Auxiliary Fuel Monitoring System (AFMS) shall provide the pilots with a fuel quantity display for each installed auxiliary fuel tank. Each	el Moni	toring	Syste	m (AF	MS) s	shall p	rovide	the p	ilots v	vith a	fuel q	uantity	/ displ	ay for	each	install	ed au	dilary fu	uel tan	k. Ea	동
can will have its own the proper. The system will mornior external her for imparance contained essent in an early attend center-or-graving changes that exceed a certain designated value. If an imbalance is detected, the system will activate a light on the AFMS panel, the aux fuel	seed a c	er pro Xertair	n desig	ne sy: ynated	value Value	viii iir. ≥. Ifa	n imb	alance	is de	tecte	ilbala 1, the	systen	n will s	activa!	te a lic	ht on	the Af	stern win mornitor external ruer for imparance containons that resont in ancient rater a center-or-gravity d value. If an imbalance is detected, the system will activate a light on the AFMS panel, the aux fue	inel, th	e aux	fuel
segment light on the caution/advisory panel, and the master warning panel. Aircrews will have the capability to directly read the weight of all	the cat	ution/s	adviso	ry pan	el, an	d the	maste	r wari	ning p	anel.	Aircre	ws wi	II have	the c	kapabi	lity to	directly	y read t	the we	ight of	<u>=</u>
the auxillary fuel that may be in each of the External Stores Support System (ESSS)/Extended Range Fuel System (ERFS) and store locations. This safety modification will continue to assure that a fully capable aircraft is available to support the combat mission requirement.	mat më safetv m	ay be todific	in eac		e Ext	ernal to as	stores sure t	s Supp nat a i	לא חסל [ע א][ר]	/stem apable	(ESS) e aircr	o//⊏xt aft is a	eridec availat	or Kang Se to	gabbo	a Syst	au (E	rro) a at missi	on rec	re Tuirem	ent.
Gauging will improve aircraft management of auxiliary fuel for everyday mission use of the system.	rove air	craft	mana	jemer	ıt of a	uxiliar	y fuel	for ev	eryda	y mis	sion u	se of t	he sy:	stem.	<b>-</b>						
DEVELOPMENT STATUS / MAJOR DEVELOPMENT	US / MA	IOR DE	VEL OF	1.	MILESTONES:	TONES															
		Š																			
Installation Schedule:	  -  -		77					0000				V .			6	2002				- N	
	Totals	-	-	3	4	\[ \]		9	4	ľ		-	3	4	-	2002		4	2	2002	
Inputs	6	2	1 25	i 8	8 8	9	8	` 							-						
Outputs		20	100	100	100	100	125	150	150	29				_							
		FY 2004	704			FY 2005	005			<u> </u>	FY 2006				FY 2007			To			Totals
	-	2	3	4	F	2	3	4	_			3 4	4	_	2	3	14	Complete			
Inputs Outputs																					934
METHOD OF IMPLEMENTATION:	ENTATIO	1	OLR Teams	3ms		ADMIN	STRAI	IVE LE	ADMINISTRATIVE LEADTIME	نن	3	Months	s	PRO	PRODUCTION LEADTIME:	N LEA	TIME:	က	Months		
Contract Dates:		ш. 1	FY 1999		Jan 99			FY 2000	0					FY 2001	5						
Delivery Date:		-	FY 1999		Mar 99			FY 2000	٥					FY 2001	01						

February 2000

INDIVIDUAL MODIFICATION

						INDI	/IDUAL	INDIVIDUAL MODIFICATION	CATIO	z							Date		February 2000	2000	
MODIFICATION TITLE:	Batte	Battery/Power Light Relocate 1-94-01-1953	er Ligl	nt Rel	ocate	1-94	01-19	53													
MODELS OF SYSTEMS AFFECTED: UH-60A/L and	S AFFECT	ED: OH	-60A/L	and EH	-60A/L	EH-60A/L Black Hawk	ławk														
DESCRIPTION / JUSTIFICATION:	<b>IFICATION</b>																				
Provide the fleet with a low cost, low maintenance, longer life battery, which would replace the existing maintenance intensive Nickel	with a lo	w cost	<u>0</u>	naint	enanc	e, lor	ger lif	e batte	ry, wh	ich w	ould r	eplace	e the	existir	g mai	ntenan	ce inte	nsive	Nickel		
Cadmium battery. Maintenance cost, both spares and man-hours, will be reduced and disposal cost minimized by providing a recyclable hattery. The new hattery will meet the EPA environmental health hazard restrictions.	y. Mainte	enance will me	cost,	both FPA	spare	s and	man-	hours,	will be	e redu	iced a	nd dis	posal	cost	minim	zed by	, provic	ding a	recycla	ple	
· Compa			<b>.</b>	i		,															
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	TUS / MAJ(	OR DEVE	LOPM	ENT	ILEST(	ONES:															
Installation Schadula																					
	Pr Yr		FY 1999				FY 2000	8			FY 2001	100			F	FY 2002			FY 2003	03	
	Totals	1	2	ε	4	+	2	3	4	٦	2	က	4	-	2	3	4	-	2	3	4
Inputs								20	20	20	20	100	100				150	150	150	150	28
Outputs			-	_				22	52	20	72	75	75	100	100	125	125	125	125	125	125
				ŀ				-						1				Ī			
	-	FY 2004	- 1	+	ŀ	FY 2005	- 1		f	FY 2006	- 1			∠ا	200		,	0		D	Totals
	-	2	က	4	=	7	8	4	-	7	8	4		2	3	4	ပိ	Complete			
Inputs Outputs	125	53																			1453 1453
METHOD OF IMPLEMENTATION:	ENTATION		OLR Teams			DMINIS	TRATI	ADMINISTRATIVE LEADTIME:	JTIME:		<u>ი</u>	Months		PROD	JCTIO	PRODUCTION LEADTIME:	IME:	8	Months		
Contract Dates:		<u></u> ፫	FY 1999 FY 1999	글 e	Jul 99 Jan 00			FY 2000 FY 2000	20	Mar 00 Oct 00				FY 2001 FY 2001		Mar 01 Oct 01					
											l								l	İ	]

					INDIVIDI	JAL MC	INDIVIDUAL MODIFICATION	NO						Date	 	February 2000	
MODIFICATION TITLE (Cont):		Satte	Battery/Power		Light Relocate 1-94-01-1953	te 1-9	1-01-196	ုင္လ									
FINANCIAL PLAN: (\$ in Millions)	EV 1008	Γ															
	and Prior	<u>L</u>	FY 1999	H	FY 2000	_	FY 2001	ΕY	FY 2002	FY 2003	500	FY 2004	90	FY 2005	TC	TOT	TOTAL
	Qty \$	g	Oty \$	Ö	\$ ∑	ģ	€	Öţ	\$	Δţ	€	Qty	69	Oty \$	Qty \$	Qţ	€
RDT&E PROCHREMENT																	,
Kit Quantity			250 2	0.	575 5	5.0 10	100 1.0	0 528	5.3							1,453	13.3
Installation Kits										***********						•	
Installation Kits, Nonrecurring	-	0.3															0.3
Equipment																	*******
Equipment, Nonrecurring					**** ********												
Data																	
Training Equipment																	
Support Equipment		<u></u>															*********
Other																	***************************************
Interim Contractor Support					and the state of t												Tellana Renda .
																	************************************
				•							•						
Installation of Hardware					***************************************												
FY 1998 & Prior Eqpt Kits																	
FY 1999 Eqpt 250 Kits					100	0.5 15		80								250	
FY 2000 Eqpt 575 Kits							150 0.8	8 425	2.9							575	3.7
FY 2001 Eqpt 100 Kits								100	0.6							100	
FY 2002 Eqpt 528 Kits								20	0.3	478	3.4					528	
FY 2003 Eqpt Kits																	
FY 2004 Eqpt Kits																	
FY 2005 Eqpt Kits											-	•••••					
TC Equip-Kits						j				-							
Total Installment		-		-	100	0.5 300		6 575		478	3.4					1,453	9.3
Total Procurement Cost	0	0.3	2	0:	2	15.	2.6	9	9.1		3.4						22.9

						IND	/IDUAL	INDIVIDUAL MODIFICATION	CATION							Date		February 2000	2000	٦
MODIFICATION TITLE:	NVG Lighting Lower	Lighti	ng Lo	wer C	onsole	1-90-	Console 1-90-01-1933	33												
MODELS OF SYSTEMS AFFECTED: UH-60A/L Black Hawk	AFFECT	ED: U	H-60A/	Black	Hawk															
DESCRIPTION / JUSTIFICATION:	ICATION	<u>.</u> .				:														
This is a safety related requirement resulting from incident report findings stipulating the lack of the lower console lighting as a present factor in the incident. This safety related improvement will improve cockpit lighting which will increase the capability of the night vision goggles and	ated re iis safe	quire ty rek	ment ated ii	resulti nprov	ng fro ement	m inci	dent re	port fir	idings it lighti	stipula ing wh	ating the	ne lact	c of the	lower e capa	conso bility o	e lightir f the nig	ng as a tht vision	presen	t factor les and	L 70
eliminate the pilot's/co-pilot's need to transition from goggles to no-goggles (heads down) in order to see and operate the radio control heads.  Until this is accomplished, the radios and equipment in the lower console must remain unlighted.	s/co-pil plished	oťs n I, the	eed to radios	trans and	iition fi equipr	om go nent ir	oggles the lo	to no-c wer co	joggle nsole	s (hea must r	ds dov emain	vn) in unligh	order t nted.	o see	do pue	erate th	e radio	control	heads	
Existing cockpit lighting and relighted radio control panels will be upgraded to be in conformance with DOD Spec MIL-L-85762 and compatible with ANVIS-6 goggles. The proposed cockpit lighting upgrade will improve night operations capability.	ihting a gles. T	nd re he pr	lighte opose	d radio	o contr kpit lig	ol par Ihting	iels wil upgrac	l be up le will i	grade	d to be e nigh	in co toper	nforma ations	ance w capab	ith DO Ility.	D Spe	: MIL-L	-85762	and co	mpatibl	<u>ē</u>
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	S / MA.IC	SR DE	/FI OP	MENT	AIL EST	ONES														
Installation Schedule:	ķ		EV 1000	8	-		EV 2000	٤	-		EV 2004	_	+		EV 2002			EV 2002	5	
<u> </u>	Totals	F	2	e e	4	-	2	3	4	-	2	3	4	-	2 2	3 4	_	7 7	<u>ا</u>	4
Inputs	200 200 200	120	120	120	120	100	100	100	100	25	25 75	50	50	75		73 28				
		<u>:</u>																-		
		FY 2004	4			FY 2005	05			FY 2006	؈		_	FY 2007			To		Tot	Totals
<b></b>	1	2	3	4	1	2	3	4	F	2	3	4	1	2	3	4 Ω	Complete			
Inputs Outputs																				1453 1453
METHOD OF IMPLEMENTATION:	<b>UTATION</b>		OLR Teams	SIL	٩	DMINIS	TRATIV	ADMINISTRATIVE LEADTIME:	TIME:		2 Mo	Months	PR	DDUCTI	PRODUCTION LEADTIME:	JTIME:	3	Months		
Contract Dates: Delivery Date:		և և	FY 1999 FY 1999	<b>Z</b> II.	Nov 98 Feb 99		il il	FY 2000 FY 2000	8 <u>r</u>	Nov 99 Feb 00			7 7	FY 2001 FY 2001	Nov 00 Feb 01	o <del>-</del>				
,		l			ĺ															1

MODIFICATION TITLE (Cont):		Ž	<b>NVG Lighting</b>	ting Lo	wer Co	nsole 1	Lower Console 1-90-01-1933	-1933										
FINANCIAL PLAN: (\$ in Millions)	_																	
	FY 1998	98 j	FY 1999	000	EV 2000		EV 2001	5	EV 2002	6	EV 2003	EV 2004		EV 2005	_	٤	TOTAL	TAI
	Oty Sty	5 69	ģ	5	Q V	8	ofy Z	<del>69</del>	ofy	1.	Oty \$	S AO	-   Š	\$	Q Qt	e	2 Fg	\$
RDT&E																		
Kit Quantity	200	<u>6</u> .	900	3.3	450	3.5			203	1.5							1,453	9.6
Installation Kits																		
Installation Kits, Nonrecurring			-											TIL PLANTAGE				**********
Equipment																		*************
Equipment, Nonrecurring																		
Engineering Change Orders																		********
Data																		
Training Equipment																		
Support Equipment			-															
Other											•••••							
Interim Contractor Support											***************************************							8438-74-778
					**********						*******							
					~													
											***************************************							-,
Installation of Hardware											***************************************							**********
FY 1998 & Prior Eq-200 Kits	200	9.0			***************************************												200	
FY 1999 Eqpt 600 Kits			480	1.6	120	4.0											009	2.0
FY 2000 Eqpt 450 Kits					280	0.9	150	0.4	20	0.1							450	
FY 2001 Eqpt - Kits																		
FY 2002 Eqpt 203 Kits					-		**********		203	0.7							203	0.7
FY 2003 Eqpt Kits																		
FY 2004 Eqpt Kits																		
FY 2005 Eqpt – Kits																		
TC Equip-Kits														har dan aar too				
Total Installment	200	9.0	480	1.6	400	1.3	150	0.4	223	9.0							1,453	4.7
Total Procurement Cost		1.9		4.9		4.8		0.4		2.3				.,				14.3

Date

INDIVIDUAL MODIFICATION

				2000								
		Exhibit P-40, Budget	.0, Budget It	em Justific	Item Justification Sheet			Date:		February 2000		
Appropriation / Budget Activity/Serial No.	al No.		!			P.1 Item Nomenclature						
	; ;	:					Ď					
AIR	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	ENT / 2 / Modification	of Aircraft					KIO	KIOWA WARRIOR (AZ2200)	500)		
Program Elements for Code B Items:	:S:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												)
Gross Cost	1295.3	196.9	51.0	48.7	41.9	41.8	42.3	42.3	31.4	31.4	195.1	2018.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	1295.3	196.9	51.0	48.7	41.9	41.8	42.3	42.3	31.4	31.4	195.1	2018.1
Initial Spares	179.9	1.4										181.3
Total Proc Cost	1475.2	198.3	51.0	48.7	41.9	41.8	42.3	42.3	31.4	31.4	195.1	2199.4
Flyaway U/C												
Wen Svs Proc U/C												

the last six aircraft of the FY89 procurement. Multi-Purpose Light Helicopter kits provide rapid deployment capability. A Control Display System processor modification identification of emergency situations; reduces pilot workload during emergency maneuvers; significantly improves the crashworthiness of the airframe thus improving DESCRIPTION: The OH-58D Kiowa Warrior is a two-seat, single-engine, observation helicopter with four main rotor blades and a thermal imaging system and laser weather conditions. Commencing in FY91, fielded aircraft were retrofit with Air-to-Air Stinger and Air-to-Ground weapons; in-line production incorporation began with incorporate R3 engines, crashworthy crew seats, a supplemental restraint system, digitization, and improved weapons interface. The SEP improves recognition and replaced three processors with two Joint Integrated Avionics Working Group standard 80960 processors. Some Crew Station Mission Equipment Training (CSMET) reconnaissance, command and control, and target acquisition/designation for Apache helicopters and other airborne weapons platforms in day, night, and adversecrew survivability; improves engine reliability, reducing the probability of engine failure and exposure to emergency autorotations; and adds digitization capabilities. Devices have been procured to support flight crew training. Efforts have been initiated to combat the encroaching obsolescence of the Mast Mounted Sight and to incorporate the capabilities of a Switchable Eye-Safe Laser Rangefinder Designator (SELRD). The Safey Enhancement Program (SEP) was initiated in FY96 to Partial SEP improvements had been incorporated into the later lots of Bell Helicopter's remanufacture/retrofit modification lines; those aircraft will complete SEP range finder/designator in a Mast Mounted Sight situated above the main rotor system. The aircraft operates autonomously at standoff ranges providing armed modifications through field retrofit activities. Other fielded Kiowa Warrior aircraft are being SEP modified via a combination of efforts on the contractor's SEP modification line and through field retrofit. JUSTIFICATION: Modification efforts allow the Kiowa Warrior to safely serve as the Army's night, armed reconnaissance aviation capability until RAH-66 fielding begins and to complement Comanche throughout its projected life with gradual displacement. The FY01 program continues the SEP.

Expibit P.40M Budge		em Justific	Item .Instification Sheet		<u> </u>	Date		February 2000		
				o 1 Ham Momenclature						
Appropriation / Budget Activity/Serial No. AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	n of Aircraft				D	KIOW	KIOWA WARRIOR (AZ2200)	(00)		
Program Elements for Code B Items		Code	Other Related Program Elements	m Elements			-			
Description	Fiscal Years									
OSIP NO. Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Crew Station Mission Equipment Trainer (CSMET)	MET)									
TBD 3 Training	2.4	6.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0	13.6
Safety Enhancement Program										
TBD 4 Safety	136.9	36.2	38.6	41.8	42.3	42.3	31.4	31.4	195.1	596.0
Digitization (No P-3a Set)										
TBD 5 Operational	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6
Mast Mounted Site (MMS) (No P-3a Set)										
TBD 6 Operational	1.4	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
Training Devices (No P-3a Set)										
TBD 7 Training	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
Remanufacture (No P-3a Set)										
TBD 1 Operational	0.606	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	910.1
Retrofit (No P-3a Set)										
1-88-01-2103 Operational	480.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	481.3
Halon Fire Extinguisher (No P-3a Set)										
TBD 2 Congressional	1.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
										0.0
				***************************************	***************************************					
			***************************************		***************************************			HALIMAN DA MANANAMANAMANAMANAMANAMANAMANAMANAMANA		0.0
	15	***************************************					And Andrews			0.0
TOTALS	1,543.2	48.7	41.9	41.8	42.3	42.3	31.4	31.4	195.1	2,018.1

Aodificat	Exhibit P-3a Individual Modificat	EXH					of 4	Item No. 20 Page 3 of 4	Item No.							
			Dec 01		FY 2001			Feb 01	FY 2000			Jan 00	FY 1999	L (L	:	Delivery Date:
	Months	Ξ	PRODUCTION LEADTIME:	ICTION LE	PRODU	Months	4 M	Æ:	IVE LEADTIN	ADMINISTRATIVE LEADTIME:		d Retrofi	Kr Line & Fld		MENTATI	METHOD OF IMPLEMENTATION:
																inputs Outputs
·		Complete	4	3	1 2	4	3	1 2	4	3	2	4	3	2	-	
Totals		To		200	FY 2007	_	900	FY 2006		305	FY 2005	_	4	FY 2004		
																Inputs Outputs
4	FY 2003	4	3	FY 2002	1	3	FY 2001	1	3	2 2	F	3	2 2	-	Pr Yr Totals	
																Installation Schedule:
	Helicopter	ch Bell	ed in ea	t modifi	of aircraf	number (	for the rations.	ately identifies quantities and dollars for the rate individual modification kit installations.	ties and cation k	s quanti al modiff	identifie ndividua	arately for the i	age sep dollars	owing p lies and	a on follis s quantif	Installation data on following page separately identifies quantities and dollars for the number of aircraft modified in each Bell Helicopter Textron lot plus quantities and dollars for the individual modification kit installations.
<u>و</u> ر.	ovided. Majority of aircraft will be partially block modified at Bell Helicopter Textron facilities; howev complement of modifications at that facility. Some aircraft will receive portions of the modification t all field retrofit aircraft will receive all field retrofit modifications.	extron fa	opter Te e portior	all Helico I receive ns.	ied at Be rcraft wil odificatio	ck modif Some aii trofit mo	ially bloc acility. § I field re	be part at that fa	craft will cations ift will re	ty of air of modifi fit aircra	. Majori ement c eld retro	rovided e compl ot all fie	ow not p complet nilarly, n	ata belc ive the and sin	redule d vill rece retrofit;	Installation Schedule data below not provided. Majority of aircraft will be partially block modified at Bell Helicopter Textron facilities; however, not all aircraft will receive the complete complement of modifications at that facility. Some aircraft will receive portions of the modification efforts via field retrofit; and similarly, not all field retrofit aircraft will receive all field retrofit
<del></del>	Impacts. An bags with increase crew protection in an modes of linght. A total of 270 of the 307-aircraft ons, 77 of these aircraft have been partially SEP equipped in the Bell Helicopter remanufacture and will be applied to them via field retrofit. The remaining aircraft will receive SEP modifications at the ats and air bags installed as field retrofits.	er rema EP modi	Helicopt	he Bell I t will rec	nodes or ped in the	EP equip emainin	riotection rtially SE t. The r fits.	e crew pacen	ft have I thave I thave I thave I thave I thave I thave I	ags will te aircra to then s install	of thes applied ar bag	ions; 77	nodifical quipmer	safety r SEP ec	or vertice e these dditional dility and	safety in case of vertical and notizontal impacs. All page will increase crew protection in all modes of light. A total of 270 of the 307-and fleet will receive these safety modifications; 77 of these aircraft have been partially SEP equipped in the Bell Helicopter remanufacture and retrofit lines; additional SEP equipment will be applied to them via field retrofit. The remaining aircraft will receive SEP modifications at the contractor's facility and will have the seats and air bags installed as field retrofits.
	sitioning bility; this will orated for crew	obal Po F) capal y incorpo	stem/Gl at (JVM re being	ation Sy je Form seats a	d Naviga Messag enuating	Improve Variable ergy Atte	ystem, I th Joint ' C). End	cation S PUs wii	t Identifi rate IMC tized Co	Comba incorpo irst Digi	ond will and F	dem, Ba and bey on (FDI	Data Mor P Lot 4 a	roved D stc. SEI Digitize	able Imp I Map, e y to First	IMCPU will enable Improved Data Modem, Battlefield Combat Identification System, Improved Navigation System/Global Positioning System, Digital Map, etc. SEP Lot 4 and beyond will incorporate IMCPUs with Joint Variable Message Format (JVMF) capability; this will support fielding to First Digitized Division (FDD) and First Digitized Corps (FDC). Energy Attenuating seats are being incorporated for crew
Ħ	) incorporates multiple improvements to resolve safety issues and to equip the airframe to perform the factical internet. The R3 Engine increases reliability and control responsiveness and overcomes ster response time to power demands. The accompanying Improved Master Controller Processor Ulty for memory and throughput while reducing aircraft empty weight and operating and support costs.	he airfra eness ar Controlle ting and	equip the sponsive Master (	s and to ntrol res proved l eight an	ty issues y and co ying Im empty we	ilve safe reliability scompar aircraft e	s to reso creases The ac	vements agine inc emands.	le Impro ie R3 Er oower de	s multip rnet. Th time to p and thr	orporate ical intel sponse memory	EP) inco the tacti aster rea ility for a	gram (SI ing with oviding f th capab	ent Prog interfaci y by pro % growt	nanceme latform anomal des 100°	The Safety Enhancement Program (SEP) incorporates multiple improvements to resolve safety issues and to equip the airframe to perform as a digitized platform interfacing with the tactical internet. The R3 Engine increases reliability and control responsiveness and overcomes the rotor droop anomaly by providing faster response time to power demands. The accompanying Improved Master Controller Processor Unit (IMCPU) provides 100% growth capability for memory and throughput while reducing aircraft empty weight and operating and support costs.
														NO	STIFICATI	DESCRIPTION / JUSTIFICATION:

Safety Enhancement Program TBD 4

AODELS OF SYSTEMS AFFECTED: OH-58D Kiowa Warrior

MODIFICATION TITLE:

Installation Schedule:																						
	PrYr		FY 1	FY 1999			FΥ	FY 2000			4	FY 2001	_			FY 2002	200			Fγ	FY 2003	
	Totals	1	2	3	4		7	2	3	4	1	2	3	4	1	2	3	4	1	2	3	3
Inputs Outputs									i													
		FY 2004	2004			FY	FY 2005			ш	FY 2006				FY 2007	20			To			Totals
	1	2	3	4	1		2 3	3	4	1	2	3	4	1	2	3	4	Ó	Complete			
Inputs																						
Outputs																						
METHOD OF IMPLEMENTATION: Kr Line & FId	ENTATION	:NO	Kr Line	& Fld F	Retrofi	ADMII	Retrofi ADMINISTRATIVE LEADTIME:	TIVEL	EADTIN	Æ:	4	4 Months	nths	ď	RODUC	NOIT	LEADT	IME:	PRODUCTION LEADTIME: 11 Months	Month	S	
Contract Dates:			FY 1999	တ	Feb 99	_		FY 2000	00	Mar 00	8			ÍΤ	FY 2001		Jan 01					
Delivery Date:			FY 1999	6	Jan 00	_		FY 2000	00	Feb 01	7			Ĺ	FY 2001	_	Dec 01					

					S	INDIVIDUAL MODIFICATION	MODIF	CALC							اد	Date		February 2000	y zoou	I
MODIFICATION TITLE (Cont):		Saf	Safety Enhar		ent Pr	cement Program TBD 4	TBD 4													
FINANCIAL PLAN: (\$ in Millions)	EV 4009	90																		
	and Prior	Jrior	FY 1999	66	FY 2000	00	FY 2001	10	FY 2002	02	FY 2003	003	FY 2	2004	FY 20	2005	15		TOTAL	AL
1	Qty	\$	Qty	€	Š	€9	Qty		Qty	\$	ξ	€9	ğ	\$	Qty	\$	ð	€	Qţ	\$
RDT&E PROCUREMENT								. 1915.7												
Aircraft Modified - Bell	28		28		22		22		77		23		20		53		117	190.7	310	190.7
Hardware Nonrecurring		10.7	•	2.8	•••								,,,,,						.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	13.5
Hardware Recurring:		7 7		2	- totac	/ (nontracts include installation)	inetallat				•••••									45.7
A-Kite - Bell (incl SRS)	28	<u>:</u>	28	) <del>!</del>	22	3.1	22	4.4	2	4.2	23	4.8	20	3.9	29	4.6			193	25.0
B-Kits-Helmet Cable/ICS	28		78		2	0.3	1 22	0.4	7	0.3	23	0.4	20	0.3	53	0.5			193	2.2
A/B-Kits-Crashworthy Seats	28		28				***********				***********								56	
Seats for Field Installs(A/B)	106	4.8			51	2.9	82	5.0	22	3.2	တ	9.0		*					306	16.5
Airbags for Field Installs							110	3.3	94	2.9	118	3.6	72	2.2					394	12.0
Govt-Furnished Equip (GFE):	G	9	ά	7	ζ	- 0	ά	7	ά	4 3	2	4	2	r.					191	46.6
Processor (IMCPO)	105	19.0	8 8	, r.	2 %	7 1 7	. r.	5 4	7 2	, «	<b>7</b>	, e	3	;					198	79.4
Other Offi	3	; c	3	;	3		2	17	:	1.6	)	2.3		2.0		1.5				10.2
Control of Control		;		-				ري د		2.0		5.		0.5		0.4				3.9
Project Management/Admin		16.5		- m		6.4		. 4 . 5		6.4		4.7		4.4		5.9				48.2
Aircraft Pren		5.7		2.9		3.5		2.9	<i></i>	2.9	·····	3.0		2.9		3.0				26.8
Fielding		š		0.1		1.5		2.8		4.5		4.8		4.0		4.2		3.9		25.8
Training/Training Devices				0.3								0.9			•••••	2.5				3.7
Other		2.1		1.		6.0		1.0		1.3		4.1		1.1		1.7		0.5		11.1
Installation of Hardware		-																		
FY 1998 & Prior Eqpt-28 A/C	28 (1	BHTI co	28 (BHTI contract includes installation costs in Hardware Recurring - see above.)	ludes in	stallation	costs in	Hardwai	re Recun	ring - se	e above	·								78	
FY 1999 Eqpt - 28 Line A/C			28 (BHT	3HTI cor	tract inc	I contract includes installation costs in Hardware Recurring - see above.)	tallation	costs in	Hardwa	re Recui	rring - s	ee above	(-é				***************************************		28	
FY 2000 Eqpt - 22 Line A/C	**********				22	4.7													22	4.7
FY 2000 Eqpt - 27 Fld Instl					27	0.2					,								27	0.2
FY 2001 Eqpt - 22 Line A/C							22	4.7											55	4.7
FY 2001 Eqpt - 116 Fld Instl					nner		116	0.8									********		116	0.8
FY 2002 Eqpt - 21 Line A/C	************						***********		21	4.6									21	4.6
FY 2002 Eqpt - 139 Fld Instl							•••••		139	0.9			. 10 17 17 17 17 1				***************************************		139	0.0
FY 2003 Eqpt - 23 Line A/C					,						23	5.2							23	5.2
FY 2003 Eqpt - 226 Fld Instl				,							226	1.4							226	1.4
FY 2004 Eqpt - 20 Line A/C													20	4.6	••••••				20	4.6
FY 2004 Eqpt - 120 Fld Instl													120	0.5					120	0.5
FY 2005 Eqpt - 29 Line A/C										-					53	6.8			29	6.8
FY 2005 Eqpt - 62 Fld Instl											**********				62	0.3			62	0.3
TC Equip- 117	********							1		$\top$										
Total Installment	28		28		49	4.9	138	5.5	160	5.5	249	9.9	140	5.1	91	7.1			883	34.7
Total Procurement Cost		136.9		36.2		38.6		41.8	-	42.3		42.3		31.4		31.4		195.1		596.0

								Date:				
		Exhibit P-40, Budget I		em Justific	tem Justification Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	No:					P-1 Item Nomenclature:	ure:					
AIRC	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	ENT / 2 / Modification	of Aircraft				•	EH-60 C	EH-60 QUICKFIX MODS (AB3000)	B3000)		
Program Elements for Code B Items:	ij			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	83.4	13.8	36.5	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	138.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	83.4	13.8	36.5	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	138.6
Initial Spares	71.2	2.3										73.5
Total Proc Cost	154.6	16.1	36.5	0.0	4.9	0.0	0.0	0:0	0.0	0:0	0.0	212.1
Flyaway U/C												
Wpn Sys Proc U/C												

This modification line funded the Prophet Heliborne efforts. This program has been terminated and redirected to Prophet UAV.

JUSTIFICATION: No FY01 planned program.

	Exhibit P-	Exhibit P-40M Budget Item Justification Sheet	em Justific	ation Sheet			Date			:	
Appropriation / Budget Activity/Serial No.									rebruary 2000		
	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	lion of Aircraft			P-1 Item Nomenclature	<b>e</b>	EH-60 (	EH-60 QUICKFIX MODS (AB3000)	AB3000)		
Program Elements for Code B Items	lems		Code	Other Related Program Elements	m Elements					:	
Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005		Total
Quickfix Upgrades	1					722	2002	1 2001	1 2000	2	lotal
1-02-07-0001	Operation	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	4.9
Totals		0.0	0.0	4.9	0.0	0.0				0.0	4.9
											10 -
					***************************************						777777777777777777777777777777777777777
		M. (1.11.)									
		***************************************							***************************************	***************************************	
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	MERTIN DES REPUBBLICATION DE L'AUTORNATION DE L'AUTORNATION DE L'AUTORNATION DE L'AUTORNATION DE L'AUTORNATION	***************************************	***************************************	***************************************					***************************************		
											****

							NDIN	DUAL	INDIVIDUAL MODIFICATION	CATIO	z							Date			February 2000	0003	
MODIFICATION TITLE:	: Quic	Quickfix Upgrades 1-02-07-0001	Jpgra	des 1	-02-C	ا2-00(	)1																
MODELS OF SYSTEMS AFFECTED: Quickfix, EH-60A, AN/ALQ-151(V)2	IS AFFEC	TED:	Quickfi	×, EH-	50A, A	N/ALQ	-151(V	)2															
DESCRIPTION / JUSTIFICATION:	<b>IFICATIC</b>	:N																					
Due to the Prophet Heliborne restructure, funding was no longer required. Funding was reprogrammed to support the fielding of the Guardrail Common Sensor System 2 program.	net Heli r Syster	borne m 2 p	restr rogra	uctur m.	e, fur	ding	was r	no lon	ger re	quirec	Fu Fu	nding	was	repro	gramı	ned tr	ldns c	oort th	e field	ling o	f the G	uardra	aii
																						•	
DEVELOPMENT STATUS / MAJOR DEVELOPMENT	rus / MA	JOR D	EVELC	PMEN	IT MIL	MILESTONES:	ES:																
·																							
Installation Schedule:																			-				
	Pr Yr Totals	F	F	666	3	4	-	FY 2000	) 3 9	4	-	FY	FY 2001		4	_	FY 2002	3	4	-	FY 2003	33	4
Inputs Outputs																							
		FY 2004	904		_		FY 2005	"	-		FY 2006	900			[1	FY 2007		$\vdash$		101		2	Totals
	F	2	3		4	_	2	3	4	-	2	3	4		1	2	3	4	Complete	olete			
Inputs Outputs																							
METHOD OF IMPLEMENTATION: Contract Dates:	ENTATIC		FY 1999	စ္	Ente	ADIA Enter Date	NINIS	RATIV	ADMINISTRATIVE LEADTIME: ate FY 2000 E	TIME: E	:: 2 Enter Date	24 ate	Months	s	PRODU	PRODUCTION LEADTIME: FY 2001 Enter Date	ON LE	LEADTIME Enter Date		24 Mc	Months		
Delivery Date:			FY 1999	ွှ	Ente	Enter Date		Ĺ	FY 2000	Ш	Enter Date	iţe			FY 2001	001	Ē	Enter Date					
																						ı	ı

PINANCIAL PLAN. (\$ in Millions)   PINA				NDIVIDU	INDIVIDUAL MODIFICATION	NOI			Date	Febru	February 2000	
FY 1996         FY 2004         FY 2001         FY 2002         FY 2004         FY 2004         FY 2004         FY 2005         TC           Cly         \$         Cly         \$ </td <td>MODIFICATION TITLE (Cont):</td> <td>Õ</td> <td>uickfix Upgrad</td> <td>les 1-02-07-0</td> <td>001</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	MODIFICATION TITLE (Cont):	Õ	uickfix Upgrad	les 1-02-07-0	001							
Second Second	FINANCIAL PLAN: (\$ in Millions)	L	<b></b> -									
REMENT mithy in the Kits into Kits. Nonecuring the Kits. Nonecuring and Change Orders         City \$ Ci		and Prior	FY 1999	FY 2000	FY 2001	, 200	, 200	, 200	FY 2005	ဍ	OTAL	
REMENT antity tion Kits tion Kits tion Kits, Nonrecurring enth Nonrecurring ering Change Orders g Equipment t Equipment t Equipment  Contractor Support  Contractor Support  On of Hardware 998 & Prior Eqpt – Kits 000 Eqpt – Kits 000 Eqpt – Kits 001 Eqpt – Kits 002 Eqpt – Kits 003 Eqpt – Kits 004 Eqpt – Kits 005 Eqpt – Kits 005 Eqpt – Kits 006 Eqpt – Kits 007 Fits 008 Eqpt – Kits 009 Eqpt – Kits 009 Eqpt – Kits 009 Eqpt – Kits 009 Eqpt – Kits							_		\$ Ayo		Ŷ	€
rders rders	RDT&E PROCUREMENT											
ng rders t Kits	Kit Quantity											
rders re- Kits	Installation Kits									,,		
rders port t Kitis	Installation Kits, Nonrecurring						******					
rders t - Kitis	Equipment, Nonrecurring			a garanga a san					,			
port t Kits	Engineering Change Orders		v								••••	
port t Kits	Data									•••••		
t Kits	Training Equipment						,.,,					
t Kits	Support Equipment											0 7
t Kits	Other											ŕ
t Kits	Interim Contractor Support								**********			
t Kitis										.,,		
t Kitis												
t Kits									****			
t – Kits												
rior Eqpt – Kits t – Kits	Installation of Hardware											
tr - Kits tr - Kits tr - Kits tr - Kits tr - Kits tr - Kits tr - Kits tr - Kits tr - Kits tr - Kits tr - Kits tr - Kits tr - Kits tr - Kits	FY 1998 & Prior Eqpt Kits											
ot – Kits ot – Kits ot – Kits ot – Kits ot – Kits ot – Kits ot – Kits ot – Kits ot – Kits ot – Kits ot – Kits ot – Kits ot – Kits	FY 1999 Eqpt Kits											
ot – Kits ot – Kits ot – Kits ot – Kits ot – Kits ot – Kits ot – Kits ot – Kits ot – Kits ot – Kits ot – Kits ot – Kits	FY 2000 Eqpt Kits											
ot – kits ot – kits ot – kits ot – kits ot – kits ot – kits ment Cost	FY 2001 Eqpt Kits											
ot – kits ot – kits ot – kits ot – kits ment Cost	FY 2002 Eqpt kits									*********		
ot – kits ot – kits ent ment Cost	FY 2003 Eqpt kits									***************************************		
ot – kits ent ment Cost	FY 2004 Eqpt kits											
ent ment Cost	FY 2005 Eqpt kits											
	TC Equip-Kits											
	Total Installment											
	Total Procurement Cost			4.6	6							4.9

								Date:				
		Exhibit P-40, Budget		Item Justification Sheet	ation Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	rial No:					P-1 Item Nomenclature:	re:					
AIF	AIRCRAFT PROCUREMENT /2/Modification of Aircraft	:NT / 2 / Modification	ι of Aircraft					AIRBC	AIRBORNE AVIONICS (AA0700)	(0020)		
Program Elements for Code B Items:	ms:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	161.3	58.3	41.7	56.3	45.5	60.0	78.0	68.2	52.4	76.8	42.9	741.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	161.3	58.3	41.7	56.3	45.5	60.0	78.0	68.2	52.4	76.8	42.9	741.4
Initial Spares												
Total Proc Cost	161.3	58.3	41.7	56.3	45.5	0.09	78.0	68.2	52.4	76.8	42.9	741.4
Flyaway U/C												
Wpn Sys Proc U/C												

on mission profile, operational requirements, and avionics architecture of the aircraft. The Doppler GPS Navigation System (DGNS)/AN/ASN-128B is used for the utility with extremely accurate and secure navigation capability, assists in situational awareness, and prevention of fratricide. GPS is installed in two configurations based mprovement to the DGNS and EGI will begin in FY01 to integrate a GPS Receiver Applications Module-Selective Availability Anti-Spoofing Module (GRAM-SAASM). System (AMPS). The GPS, IDM and AMPS are three of the aviation systems required to support the digitization of the battlefield. The GPS provides Army aviation Description: The Airborne Avionics budget line includes the Global Positioning System (GPS), the Improved Data Modem (IDM) and the Aviation Mission Planning and cargo helicopters. The Embedded GPS Inertial Navigation System (EGI) is integrated into the Scout/Attack fleet of helicopters. A Pre-Planned Product This interchangeable module will allow the Army to meet NAVWAR and civil airspace regulatory requirements.

Aviation interoperability with other weapon systems, the TI, and Fire Support Internet. The IDM provides a common Aviation platform solution for processing Situational The IDM is the key to digitizing Army Aviation. It is the centerpiece of Aviation's connectivity with the Tactical Internet (TI). This hardware/software solution allows Army AMPS provides critical Command and Control (C2) connectivity for Army Aviation. Without AMPS, there is no automated extraction of critical C2 information from the Awareness and Joint Variable Message Format messages. IDM will be installed on the AH-64D, OH-58D, CH-47F, SOA, and UH-60Q/L+ aircraft.

modernized platforms, including the AH-64A Apache Modernization, AH-64D Longbow Apache, CH-47D/F Chinook, OH-58D Kiowa Warrior, RAH-66 Comanche, and Maneuver Control System (MCS) for use in mission planning at Aviation brigade and below. AMPS is also the common data loader for initializing the avionics of all UH-60A/L/L+/Q Blackhawk.

also provides for the procurement of 36 IDM -303 boxes and the retrofiting of an additional 33 IDM -302 boxes to IDM -303 boxes. The IDM improves Army Aviation's Army's cargo/utility fleet. In addition, FY01 provides the initial funding for the EGI P31 non-recurring aircraft intergration for the AH-64A/D aircraft. FY01 funding Justification: The FY01 funding provides for the installation of 250 DGNS on the UH-60A/L and CH-47D aircraft, completing the basic DGNS installations on the

Exhibit P-40C Budget It	Item Justification Sheet	ition Sheet		Date February 2000
Appropriation / Budget Activity/Serial No. ARCRAFT PROCUREMENT / 2 / Modification of Aircraft		LL.	P-1 Item Nomenclature	AIRBORNE AVIONICS (AA0700)
Program Elements for Code B Items	Code	Other Related Program Elements	n Elements	
interoperability, lethality, and operational tempo through the exchange capability to communicate across the digital battlefield. Funding for AAMPS provides the capability to electronically disseminate mission al including initialization of the avionics systems of the modernized fleet.	le exchange or anding for AM e mission and rnized fleet.	of fast and ac IPS will provi d battle plans	curate data-burst comn de for continuation of sy from brigade comman	interoperability, lethality, and operational tempo through the exchange of fast and accurate data-burst communications via the TI thereby providing the seamless capability to communicate across the digital battlefield. Funding for AMPS will provide for continuation of system hardware procurement as well as software upgrades. AMPS provides the capability to electronically disseminate mission and battle plans from brigade commander all the way to individual aviation warfighting platforms, including initialization of the avionics systems of the modernized fleet.
,				

	Exhibit P-40M Budget		em Justific	Item Justification Sheet		<u> </u>	Date	-	February 2000		
Appropriation / Budget Activity/Serial No.	Serial No.	Aireagh			P-1 Item Nomenclature	a.	NACAGIA	AIBBOBNE AVIONICS (440200)	Ę.		
4	AIRCKAF I PROCUREMENT / 2 / Modification	of Aircraft					AINBORIN	E AVIOINICS (AAV	(00		
Program Elements for Code B Items	ems		Code	Other Related Program Elements	m Elements						
Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Embedded GPS In	Embedded GPS Inertial Navigation System (EGI) (No P3	GI) (No P3a S	ta Set)								
TBD 1	Legislative	34.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.5
Doppler GPS Navi	Doppler GPS Navigation System (DGNS) (AN/ASN-128B)	/ASN-128B)									
TBD 2	Legislative	57.8	18.8	15.2	2.7	0.0	0.0	0.0	0.0	0.0	94.5
Global Positioning	Global Positioning System (GPS) [AN/ASN-149] (No P3a	19] (No P3a S	Set)								
TBD 3	Legislative	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
Improved Data Modem (IDM)	dem (IDM)										
TBD 4	Oper/Log	39.5	27.6	16.5	32.5	42.6	53.7	35.7	46.9	30.3	325.3
Aviation Mission Planning System	lanning System										
1-95-01-2185	Oper/Log	29.2	6.6	9.6	0.6	7.1	0.0	0.0	0.0	0.0	64.8
Embedded GPS In	Embedded GPS Inertial Navigation System (EGI) PPI	GI) PPI									
TBD 1-1	Legislative	0.0	0.0	4.2	11.4	18.8	8.6	6.6	14.6	9.1	76.6
Doppler GPS Navi	Doppler GPS Navigation System (DGNS) (AN/ASN-128B) PPI	/ASN-128B) F	Ы								
TBD 2-2	Legislative	0.0	0.0	0.0	4.4	9.5	5.9	6.8	15.3	3.5	45.4
Totals		163.1	56.3	45.5	60.0	78.0	68.2	52.4	76.8	42.9	643.2
		***************************************	***************************************	***************************************	***************************************			***************************************			
		MP1 NAMANANANANANANANANANANANANANANANANANAN	THE REAL PROPERTY OF THE PARTY	V-14, 737, 737, 737, 737, 737, 737, 737, 73		***************************************					

					INDI	VIDUAL	INDIVIDUAL MODIFICATION	ATION				Date		February 2000	90	
MODIFICATION TITLE (Cont):		go	Doppler GPS		vigatior	Syste	m (DG)	JS) (A	Navigation System (DGNS) (AN/ASN-128B) TBD 2	B) TBD 2						
FINANCIAL PLAN: (\$ in Millions)	FV 1998	g														
	and Prior		FY 1999	66	FY 2000	00	FY 2001	-	FY 2002	FY 2003	FY 2004	FY 2005	TC	Н	OTAL	
	Qty	<del>ss</del>	Qty	ક	Qty	€	Qty	\$	Oty \$	Qty \$	Qty \$	Qty \$	Qfy	σ \$	Qty	8
RDT&E PROCUREMENT				***											100010000000000000000000000000000000000	
Kit Quantity	1149	25.5	375	8.3	250	6.3					***************************************				1774	40.1
Installation Kits	•••••	6.2		1.7		1.4										8.7
Installation Kits, Nonrecurring		0.8							one a success of Manhall de							0.8
Equipment	***************************************	ī		1						<b></b>						,
Equipment, Nonrecurring		3.5		0.7					**** - ******							0.7
Data		;									1-1/1-1					
Training Equipment												••••				
Support Equipment	564	8.2	238	3.3	188	2.8									066	14.3
Other (Inc PM Mgt & Matrix Spt)		4.9		1.6		0.9	<b>,</b>	0.2								7.6
Interim Contractor Support					••••					** ************************************						
								·····								
Installation of Hardware	••••				***************************************											
FY 1998 & Prior Eqpt Kits	992	8.0	383	3.8	•										1149	11.8
FY 1999 Eqpt Kits					375	3.8									375	3.8
FY 2000 Eqpt Kits					<u></u>		250	2.5							250	2.5
FY 2001 Eqpt Kits			.,,,						***							
FY 2002 Eqpt kits																
FY 2003 Eqpt kits																
FY 2004 Eqpt kits															<u>.</u>	
FY 2005 Eqpt kits					۹.										<del></del>	
Total Installment	766	8.0	383	3.8	375	3.8	250	2.5							1774	18.1
Total Procurement Cost		57.8		18.8		15.2	 	2.7								94.5
1000 110110 1000 1 1000		?		2												

						IDNI	VIDUAL	INDIVIDUAL MODIFICATION	ICATIC	Z N							Date		February 2000	, 2000	
MODIFICATION TITLE:	E: Embe	Embedded GPS Inert	3PS I		Navi	gatior	Syst	ial Navigation System (EGI) PPI TBD 1-1	GI) PI	의 TBI	0 1-1										
MODELS OF SYSTEMS AFFECTED: Kiowa Warrior	AS AFFECT	ED: Kio	wa Wai		1-58D),	Apach	e A (AF	OH-58D), Apache A (AH-64A) Longbow (AH-64D)	vodgno	v (AH-6	4D)										
DESCRIPTION / JUSTIFICATION:	TIFICATION																				
GPS (EGI) is one of the aviation systems required for Digitization of the Battlefield. FY 01 starts the aircraft integration of the GPS EGI Preplanned Product Improvement (P3I) interchangeable module, GRAM-SAASM, in accordance with NAVWAR and civil airspace regulatory requirements for the APACHE (AH-64A) 1 ONGROW (AH-64D) aircraft. In EY 01 the non-requiring provides for the AH-64A).	duct Impl	aviatior overne	system (PC	ems ra 31) inte 4A) I	equire equire	ed for ngeab BOW	Digitization Digitization Months	zation dule, (	of the 3RAN ireraff	Battle 1-SAA	efield.	FY 0 in accα	1 start ordand	ts the se with	aircrat 1 NAV fundir	ft integ WAR (	ration and civ	of the il airsp	GPS E	EGI egulato	∑ \  -
64D aircraft integration and testing. The Kit cost will vary depending on aircraft configuration. The procurement of the kit modification will start in FY 02 for field retrofit on the AH-64A and AH-64D. The remaining EGI equipped aircraft, KIOWA Warrior (OH-58D), SOA's, will start	gration a	nd test rofit on	ing.	The Ki H-64	it cost A and	will v AH-6	ary de	pendi pendi The re	ng on mainii	aircra ng EG	aft cor	nfigura pped (	tion. aircraf	The pi	rocure WA M	ment (	of the I (OH-5	sit mod 8D), S	diffication SOA's,	on will will sta	art
field retrofit in FY03. Only the Longbow	Y03. On	ly the L	ongb.	ow GF	Ë m	odules	, (172)	GFE modules (172) will exclude installation kits and installation cost.	xclud	e inst	allatio	n kits έ	and ing	stallat	OO UO	st.					
DEVELOPMENT STATUS / MAJOR DEVELOPMENT	TUS / MAJ(	OR DEVE	ELOPM		MILESTONES:	ONES:			ο.	Planned	70					Accomplished	alishe	ō			
Contract Production	Contract Award (ECP) Production Contract Award	ECP)	5						ı	Nov 01 Apr 02	Nov 01 Apr 02							ı			
Installation Schedule:	******		EV 1000				EV 2000				EV 2001					2002			- A	600	
	Totals	-	2	3	4	-	7 7	3	4	-	2	3	4	-	2	3	4	-	2	<del>-</del>	4
Inputs					$\vdash$													29	53	28	28
Outputs			$\dashv$	_	$\dashv$	$\dashv$										-			59	8	28
		FY 2004				FY 2005	05	$\mid$		FY 2006	900			Ę	FY 2007			L C		۲	Totals
	٦	2	3	4	-	2	3	4	-	2	3	4	-	2	3	4	රි	Complete			
Inputs	31	31	31	၉ ႏ	41	41	41	41	87	87	87	87	4								923
Outputs	28	31	34	34	S .	41	41	41	44	87	87	87	87		44	43	43	П			923
METHOD OF IMPLEMENTATION	<b>(ENTATION</b>		;		⋖	OMINIC	TRATI	ADMINISTRATIVE LEADTIME	DTIME		τ-	Months		PROD	CTION .	PRODUCTION LEADTIME:	ij Mi	9	Months		
Contract Dates:		<u></u>	FY 1999 FY 1999				_ 4	FY 2000 FY 2000						FY 2001 FY 2001	<del></del>						
		:																l			1

			סואוסאוו	יוטוייסו ווסטאי בהטטיעועויי						ב	Date		repruary 2000	2002	
MODIFICATION TITLE (Cont):	En	Embedded GPS Inertial Navigation System (EGI) PPI TBD 1-1	Inertial Nav	igation Sys	tem (EG	I) PPI TB	1-1 O								
FINANCIAL PLAN: (\$ in Millions)	FY 1998	-													
	and Prior	FY 1999	FY 2000	FY 2001	-	FY 2002	FY 2003	-	FY 2004	FY 2005	305	TC		TOTAL	يِا
•	Qty \$	Qty \$	S 40	S A	Qfy Qfy	€	\$ Oth	ð	₩.	Qfy	€	Qfy	\$	οtλ	8
RDT&E												********			
Kit Orantity				hal annahabeb	146		195	4.0 236		376	8	174	4.7	1127	27
Installation Kits	*********			***********		0.4			0.5		1.0	•	0.5	į	; <sup>(2)</sup>
Installation Kits, Nonrecurring					10.0	11.0		3.0	3.0	www		***************************************		•••••	27.0
Equipment				**********											
Equipment, Nonrecurring				······································		0.4					3.7				4.1
Engineering Change Orders	*******		4.0		6.0	0.8	************								Ō
	***************************************			********								••••			
Training Equipment		,					•••••								
Support Equipment							<i></i>					.,,,,,			
Other (Inc PM Mgt & Matrix Spt)			0.2	2	0.5	9.0		0.4	0.3		0.5	••••••	0.1		2.6
Interim Contractor Support	***************************************														
														••••	
				•••••••••••••••••••••••••••••••••••••••				•							
Installation of Hardware														*******	
FY 1998 & Prior Eqpt Kits															
FY 1999 Eqpt - Kits															
FY 2000 Eqpt - Kits														*********	
FY 2001 Eqpt Kits														•••••	
FY 2002 Eqpt 114 kits							114	8.0						114	0
FY 2003 Eqpt - 123 kits								123	3 0.9					123	0.9
FY 2004 Eqpt - 164 kits				••••••						164	1:			164	1.1
FY 2005 Eqpt - 348 kits							•••••					348	5.6	348	2.6
TC Equip- 174 Kits												174	1.2	174	1.2
Total Installment	.,,,,,,,,						114	0.8 123	9.0	164	1.1	522	3.8	923	6.6
Total Progurement Cost			CV		14.4	0 0 7		0			,				400

						IND	VIDUAL	INDIVIDUAL MODIFICATION	ICATIO	z						Date		February 2000	2000	
MODIFICATION TITLE:	E. Doppl	er GF	S N	avigati	on Sy	stem (	DGNS	(AN/	ASN-1	(28B)	Doppler GPS Navigation System (DGNS) (AN/ASN-128B) PPI TBD 2-2	3D 2-2								
MODELS OF SYSTEMS AFFECTED: Blackhawk (UH-60 A/L), Chinook (CH-47D)	IS AFFECTI	ED: BI	ackha	^k (UH-	60 A/L)	, Chinoc	k (CH-	(QZ‡												
DESCRIPTION / JUSTIFICATION:	<b>IFICATION</b>																			
GPS (DGNS) is one of the six aviation systems required for Digitization of the Battlefield. FY01 starts the Pre-Planned Product Improvement for the ASN-128B/DGNS nonrecurring aircraft integration on the UH-60A/L aircraft. This modification is a joint service initiative	one of the the ASN	ne six  -128   -	avia 3/DG	tion s) NS nc	/stems	s requi	red fo	Digiti: Integr	zation ation c	of the	Battle UH-60	field. )A/L ai	FY01 :	starts This	the Pre modific	-Plann ation is	ed Prod a joint	uct	initiativ	e e
which will provide a common interchangeable module, GP'S Receiver Applications Module Selective Availability Anti-Spooling Module GRAIN-SAASM. The AN/ASN-128B/DGNS Pre-Planned Product Improvement will provide for open, upgradable architechture and meet the	le a comr N/ASN-1	11 non 28B/I	oterci OGN	ange 3 Pre-	able r Plann	nogule ed Pro	duct	жесе: пргои	ver Ap	oplicat will pi	rions M rovide 1	lodule for ope	selecti ₃n, upg	ive Av radab	allabilli le arch	y Anti-: itechtur	e and n	g Modul neet the	9 G	-  <u>-</u>
requirements of NAVWAR and civil airspace regulations for the UH-60 A/L and CH-47D aircraft fleets.	NAVWAF	⊰ ano	Civil	airspa	ace re	gulatic	ns for	the U	H-60 A	√L anα	3 CH-4	7D air	craft fle	ets.						
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	rus / Majo	R DE	/ELOF	MENT	MILES	TONES:	:													
Contract	Contract Award (ECP)	CP)								Planned Feb 0	nned Feb 00				Ă	Accomplished	shed			
Productic	Production Contract Award	ct Av	ard							щ	Feb 02									
Installation Schedule:	******		EV 4000	000			CV 2000	90	-		EV 2004		_	:	EV 2002		_	EV 2003	203	
	Total	-	<u> </u>	<u> </u>	4	F	1	<u> </u>	4	+		<u></u>	4	-	2	67	4	-	<u> </u>	4
Inputs		+							1				1	-	-		20	20	20	20
Outputs		$\dashv$									-	$\dashv$	$\dashv$	_				20	20	50
								-				-		1		ļ	1		1	
	Ţ	FY 2004	4 6	1	Ī	FY 2005	305	1	+	FY 2006	906	+	-	FY 2007	\  -		To		ĭ	Totals
4	- ç	7 5	2 6	1 5	- 0	7 6	2 5	1 0	- 5	124	2 424	1 40 1	+	7	2		on inhere			1050
Outputs	20 40	5 4	\$ 4	3 4	3 4	8 8	3 6	3 25	50	124	124	125	125	_	-	T				1058
METHOD OF IMPLEMENTATION:	ENTATION	1	ontract	Contractor Team		ADMINI	STRATI	ADMINISTRATIVE LEADTIME	DTIME:		<b>1</b> ≥	Months	R.	opnc	TION LE	PRODUCTION LEADTIME:	9	Months		
Contract Dates:		Ĺ	FY 1999					FY 2000					₹	FY 2001						
Delivery Date:		Ĺ	FY 1999					FY 2000					£	FY 2001						
															l	l				

			NDIVIDUA	INDIVIDUAL MODIFICATION	z					Date		February 2000	2000	
MODIFICATION TITLE (Cont):	Do	Doppler GPS Na	avigation Sys	Navigation System (DGNS) (AN/ASN-128B) PPI TBD 2-2	AN/ASN-12	18B) PPI	TBD 2-2							
FINANCIAL PLAN: (\$ in Millions)	FY 1998													
	d P	7 199	120	FY 2001	/ 200		2003	FY 2004	Н	7 200	TC	1 1	TOTAL	
	Qty \$	Qty \$	Qty \$	Oty \$	Qty \$	Qfy	\$	Qty \$	Qty	\$	Δţ	€	Qty	ક્ક
RDT&E										\$1405.55 \$2.00 dags.				
Kit Quantity			***********		200 4.	160	3.8	200		498 11.9			1897	25.3
Installation Kits			***************************************			9.0	0.5		9.0					3.2
Installation Kits, Nonrecurring			enser menema nas	3.0	ю́ 	0								0.9
Equipment			oodes en antare											
Equipment, Nomecuming Engineering Change Orders			our de un en en en	1.2	Ö	0.7			•				***********	6
Data			***************************************							·				
Training Equipment			ernaes cos caso							***********				
Support Equipment			non nonemana.								·			
Other (Inc PM ADMIN/MAT SPT)			·	0.2	Ö	0.4	0.2		0.3	0.5	10			1.6
Interim Contractor Support			mountain riss. 11			***************************************				***************************************				
			***************************************			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							***************************************	
										••••••••••				
Installation of Hardware														
FY 1998 & Prior Eqpt Kits														
FY 1999 Eqpt - Kits										··········				
FY 2000 Eqpt Kits			***************************************										,	
FY 2001 Eqpt - Kits														
FY 2002 Eqpt 200 kits			72474147			200	4.1						200	1.4
FY 2003 Eqpt 160 kits		- +11111	90001.07 E 01 0.4					160	1.1				160	1:
FY 2004 Eqpt - 200 kits			ra sa envena esar (							200 1.4			200	1.4
FY 2005 Eqpt498 kits											498	3.5	498	3.5
TC Equip- Kits						000	1	5					0,0	,
Total installinent						7	4.	20		47.0	498	0.0	800	4.4
l otal Procurement Cost				4.4	8	9.5	5.9		0.8	15.3		3.5		45.4

MODIFICATION TITLE (Cont):	디	nprove	Improved Data Modem (IDM) TBD 4	Mode	m (IDM)	TBD 4											:		
FINANCIAL PLAN: (\$ in Millions)																			
	FY 1998	لم		ĺ		, 1				i		i	-	i			f		
	and Prior Otv \$	Ĩ ≱	FY 1999	Ž do	FY 2000	Otv 2001	- L00:	Otv Suuz	20/8	Otv \$	2 6	Ctv 2004	4 8	Otv 2005	ვ <del>ა</del>	<u>2</u> 6	€9	OF OF	₽ \$
RDT&E		_			1.9		7.2	}	-										9.1
PROCUREMENT	**********													-47-44		**********			
Kit Quantity	260 8.8	8				36	2.1	106	6.3	220	13.3	164	10.1	183	11.5	182	11.9	1151	64.0
Installation Kits																			
Installation Kits, Nonrecurring	4.	_												***********					4.1
Equipment	0.1	_								•••••						<b>16</b>			0.1
Equipment, Nonrecurring	10.5	<u></u>	3.8		4.9		4.5	*********	4.5		1.5		1.5		1.6		3.9		37.1
Modifications		20	0 1.8	2 2		33	1.4	156	6.9	160	7.2	115	5.3	161	9.7	***********		745	32.3
Engineering Change Orders	2.0	0					0.2		9.0		1.0		8.0		1.0	*********	9.0	************	6.2
Data			0.2	<u>~</u> .	0.2		0.2		0.2							***********			9.0
Training Equipment											···			*********				********	
Support Equipment	0.1	<del></del>						**********										babbadd	0.1
Other (Incl PM Mgt/Matrix Spt)	்	<b>~</b>	0.5		0.8		1.0		1.8		2.1		1.8		1.2		1.5		19.8
Interim Contractor Support																		***************************************	
Fielding	ö	7									2.2		2.2	······	2.3		9.6		17.0
System Test & Evaluation	0.4	4						***************************************					0.3						0.7
Aircraft Integration	Ж	3	21.3		8.5		23.1		22.3		26.4		13.7	******	21.7		2.8		143.1
Capabilistics of Dardinst							-												
Ilistaliation of natuwale																			
FY 1998 & Prior Eqpt Kits														*********		•••••		•••••	
FY 1999 Eqpt Kits																••••••			
FY 2000 Eqpt Kits																•••••			
FY 2001 Eqpt Kits														*********					
FY 2002 Eqpt kits																••••••			
FY 2003 Eqpt kits	•••••					-								*******					
FY 2004 Eqpt kits			*********															•••••	
FY 2005 Eqpt kits										,,,,,,,,,,				*****				.,,,,,,,,,,,	
TC Equip-Kits																			
Total Installment																			
Total Procurement Cost	39.5	5	27.6		16.5		32.5		42.6		53.7		35.7		46.9		30.3		325.3

Date

INDIVIDUAL MODIFICATION

						Z	DIVID	JAL MC	INDIVIDUAL MODIFICATION	\TION							õ	Date		February 2000	2000	
MODIFICATION TITLE:	: Avia	ation	Missio	Aviation Mission Planning System 1-95-01-2185	ining ;	Syste	n 1-9	5-01-;	2185													
MODELS OF SYSTEMS AFFECTED: AH-64A Modernization, AH-64D, UH-60A/L/Q, CH-47D/F, AH-1F, RAH-66, UH-1H, and OH-58D	IS AFFE(	CTED:	AH-64,	A Moder	nizatio	η, AH-(	34D, U	H-60A/	Ľ/a, cŀ	(-47D/F	, AH-1	F, RA	4-66, L	IH-1H,	and OH	-58D						
DESCRIPTION / JUSTIFICATION:	<b>IFICATIO</b>	ä																	:			
The AMPS is a mission planning/battle-synchronization tool that automates aviation mission planning tasks. The AMPS includes tactical command and control, mission planning, and mission management. It interfaces with the Maneuver Control system (MCS) and associated networks which will furnish the aviation commander with continuous situational awareness, allowing the commander to rapidly adjust mission	mission ontrol, 1 will furr	planı missic iish th	d/gnird/b an pla e avig	attle-s nning, ition o	ynchr and r omme	oniza nissio ınder	tion to n ma with o	ool the nagen continu	of autonement.	mate: It inte	s avia rfaces nnal a	tion rr s with warer	ission the M	plan ר laneu allowi	ning ta ver Co ng the	asks. Introl	The system	ynchronization tool that automates aviation mission planning tasks. The AMPS includes tactical and mission management. It interfaces with the Maneuver Control system (MCS) and associated ommander with continuous situational awareness, allowing the commander to rapidly adjust mission.	incluc 3) and pidly a	des tar assoc adjust i	ctical ciated nissio	Ξ
plans. Importantly, this system generates mission data in either hard copy and electronic form; initializing the communication, navigation, and situational awareness systems of the modernization coefficients.	ly, this mmuni hussa	syster cation	m ger , nav	erates gatior	s miss 1, and	sion da situal	ata in tional	either awar	hard sness	copy syste	and e ms of	lectro the n	nic fo	rmats nized	which fleet a	ı is loe ıircraff	ded o	s mission data in either hard copy and electronic formats which is loaded on the aircraft platforms, and situational awareness systems of the modernized fleet aircraft. Since the airframes have the	aircraft	t platfc ies ha	rms, ve the	
		5			5		) 		2		5		5	<u>;</u>								
DEVELOPMENT STATUS / MAJOR DEVELOPMENT	TUS / MA	JORD	EVELC	PMENT		MILESTONES:	ij															
								ш,	Planned	اق					Acc	Accomplished	shed					
Contract Award IOTE	Award								Feb 00 Jan 01	8 <del>-</del>												
Installation Schedule:						-																
	Pr Yr		F	FY 1999		Ц	<u>[</u>	FY 2000		Н		FY 2001		-		FY 2002	02			FY 2003	903	
inputs Outputs	Totals	1	2	8	4		_	N	n	4	-	7	<u>е</u>	4	-	7	С	4	-	7	က	4
						li			-				-				ŀ					
	F	FY 2004	3	4		<u>``</u>	FY 2005	8	4	_	FY 2006	<u>8</u>	4	-	FY 2007	3	4	Con	To Complete		ĭ	Totals
Inputs Outputs																						
METHOD OF IMPLEMENTATION:	ENTATIC	:NC				ADMII	<b>NISTR</b>	4TIVE 1	ADMINISTRATIVE LEADTIME:	ME:				Δ.	RODUC	PRODUCTION LEADTIME:	EADTI	Æ:				
Contract Dates: Delivery Date:			FY 1999 FY 1999	തെ				FY 2000 FY 2000	000					IL ÍL	FY 2001 FY 2001							
																		ŀ		l		1

				INDI	/IDUAL !	INDIVIDUAL MODIFICATION	NOI						Date		Febr	February 2000	
MODIFICATION TITLE (Cont):	<	viation N	Aission	Planning	) Syste	Aviation Mission Planning System 1-95-01-2185	1-2185										
FINANCIAL PLAN: (\$ in Millions)	FV 1998	Г															
	and Prior	FY	FY 1999	FY 2000	- 8	FY 2001	FY	FY 2002	ΕΥ	FY 2003	FY 2004	004	FY 2005	-	TC	TOTAL	TAL
	Qty \$	Ofy O	<del>s</del>	Qty	\$	Qty \$	Q.	\$	Qty	\$	Qty	\$	Qty 8	H	Qty \$	Qty	\$
RDT&E	***************************************								.,,								
Kit Criantity	106	128	ć	α	,										***********	7	200
Installation Kits			 o	00	1											2	
Installation Kits, Nonrecurring										-							
Equipment	4.4	4	6.		1.9		3.6	2.5	••••						***********		13.7
Equipment, Nonrecurring															**********		
Engineering Change Orders	7.9	0	4.5		4.6		4.7	4.0				•					25.7
Data								~~~	***************************************				<del></del>		*****		
Training Equipment						,									**********		
Support Equipment	······································		-	*********													
Other (Inc PM Mgt/Matrix Spt)	2.4	4	0.5		0.5		0.5	0.3			***********				************		4.2
Interim Contractor Support				**********													
Fielding			0.5		0.2		0.2	0.3									1.2
Installation of Hardware				SFAddada P													,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
FY 1998 & Prior Eqpt Kits																	
FY 1999 Eqpt Kits																	
FY 2000 Eqpt Kits																	
FY 2001 Eqpt Kits	••••••			<i></i>													
FY 2002 Eqpt kits									**********				••••				
FY 2003 Eqpt kits						*********			••••								
FY 2004 Eqpt kits	***************************************					•••••											
FY 2005 Eqpt – kits						·········				•							
TC Equip-Kits																	
Total Installment																	
Total Procurement Cost	29.2	2	6.6		9.6	5,	9.0	7.1									64.8

		Exhibit P-4	0, Budget It	em Justifica	Exhibit P-40, Budget Item Justification Sheet		-	Date:		February 2000		
Appropriation / Budget Activity/Serial No:	ial No:					P-1 Item Nomenclature:	re:					
AIR	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	SNT / 2 / Modification	1 of Aircraft					ASE	ASE MODS (SIRFC) (AA0720)	720)		
Program Elements for Code B Items:	ns:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	126.0	27.4	24.4	5.4	11.7	4.5	14.3	4.8	4.9	2.2	0.0	225.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	126.0	27.4	24.4	5.4	11.7	4.5	14.3	4.8	4.9	2.2	0.0	225.6
Initial Spares												
Total Proc Cost	126.0	27.4	24.4	5.4	11.7	4.5	14.3	4.8	4.9	2.2	0.0	225.6
Flyaway U/C												
Wnn Svs Proc 11/C				L								

developments to obtain the most cost effective improved systems. Modifications to current systems will sustain and protect the forces, conduct precision strikes, and dominate the maneuver battle. Installing ASE items on aircraft systems improve their threat defeating capabilities. This budget item rolls up four modification efforts Countermeasures (SIRFC), and the Advanced Threat Infrared Countermeasures (ATIRCM). ASE modifications provides funding for Aircraft Survivability Equipment (ASE) upgrades by incorporation of latest state-of-the-art technology needed to meet current and emerging threats. Modular upgrades are applied in lieu of new DESCRIPTION: AA0720 is a summary for the Aircraft Survivability Equipment Ttainer IV (ASET IV) AN/ALQ-211, Suite of Integrated Radio Frequency that test, procure and install A-Kits on ASET IV and Army airframes.

## JUSTIFICATION:

improvements needed will be satisfied by SIRFC. FY00-01 funds will also support nonrecurring engineering for the integration program. The SIRFC system brings the FY00 and FY01 funding is required to procure AN/ALQ-211, Suite of Integrated Radio Frequency Countermeasures (SIRFC) for the Special Operations Aircraft (SOA). The SOA requires additional capabilities to detect and defeat air and ground radar frequency (RF) missiles and to provide situational awareness to the pilot. The latest and most sophisticated state-of-the-art technology available for the US Army aircraft to survive on the modern digital battlefield.

Note: Received \$ .6 million in FY 99 Kosovo supplemental to procure 50 AN/ALQ-144 Countermeasures Sets and 50 AN/AVR-2A Laser Detecting Sets.

		Exhibit P-40M Budget Ite	em Justifica	Item Justification Sheet			Date		February 2000		
Appropriation / Budget Activity/Serial No.	il No.				P-1 Item Nomenclature	re					
AIRC	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	n of Aircraft					ASEM	ASE MODS (SIRFC) (AA0720)	720)		
Program Elements for Code B Items			Code	Other Related Program Elements	im Elements						
Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Laser Detecting Set /	Laser Detecting Set AN/AVR-2A(V)/AH-64 (No P3a Set)	o P3a Set)									
1-92-01-2182	Unclassified	30.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.6
AN/ALQ-211 Suite of	AN/ALQ-211 Suite of Integrated Radio Frequency CMS	ency CMS									
1-92-01-2187	Unclassified	127.0	5.4	11.7	4.5	14.3	4.8	4.9	2.2	0.0	174.8
Advanced Threat Infra	Advanced Threat Infrared Countermeasures (ATIRCM) (No P3a Set)	ATIRCM) (No	P3a Set)								
TBD	Unclassified	20.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.2
Totals		177.8	5.4	11.7	4.5	14.3	4.8	4.9	2.2	0.0	225.6
:											

					=	)QIVIQI	INDIVIDUAL MODIFICATION	DIFICA	NOIL							Date		February 2000	2000
MODIFICATION TITLE:	AN/ALQ-211 Suite of	211 S	uite o	f Integ	rated	Radic	Integrated Radio Frequency CMS 1-92-01-2187	uency	CMS	1-92-	01-21	87							
MODELS OF SYSTEMS AFFECTED: AH-64D, MH-47D/L, MH-60K/L	AFFECTED:	AH-64[	), MH-	47D/L, N	√H-60∤	75								:					
DESCRIPTION / JUSTIFICATION:	ICATION:															:			
The AN/ALQ-211, Suite of Integrated Radio Frequency Countermeasures (SIRFC) is the latest technology, state of the art, radar warning and	Suite of In	tegrat	ed Re	idio Fr	edne.	ncy C	ounter	meas	ures (	SIRF(	C) is t	ne late	st tech	nology	, state	of the	art, rad	ar warr	ing and
radar jamming system that will protect Army Aircraft against newer, more capable threat air defense systems employing the latest and	stem that w	ill pro	ect A	rmy A	ircraf	agair	ist nev	wer, m	ore c	apable	e thre	atair (	defense	syste	ms en	ploying	the lai	test and	1
Prometated inforvenients in minimeter wave, purse doppier, and mont-sprecural radar and infrared technologies. The Sirk Consists of the Advanced Threat Radar Jammer (ATRJ). The SIRFC will replace the current ASE	vernerits in Warning R	eceive	etel y	rave, RWR	puise and	the A	iei, aii Ivance	ed Th	ir-spir eat R	adar,	adal	er (A]	IIared RJ). ⊣	he SIF	Nogres XFC ≪	ill repla	ce the	consist	ASE
equipment, AN/APR-39, AN/ALQ-136 and AN/ALQ-162. SIRFC is an Aircraft Survivability Equipment (ASE) project with OSD oversight and	PR-39, AN/	ALQ-1	36 ar	nd AN	ALQ	.162.	SIRF(	S is ar	Aircı م	aft Su	ırvival	oility E	quipme	ent (A	SE) pro	ject wil	th OSD	oversi	ght and
high joint interest (the AFSOC has selected SIRFC to be its bus controller and sensor fusion processor for the CV-22). It has application to other Air Engaged May A7E/D, MH, 60K/I, CH, 47D, LH.	(the AFSO(	C has	selec	ted SI	RFC	to be	ts bus	contr	oller	and se	nsor.	fusion	proces	sor for	the C	V-22). MH 60	It has a	ed SIRFC to be its bus controller and sensor fusion processor for the CV-22). It has application IDEC exetom is necessary to the curvival of the AH-64A/D. MH-47E/D. MH-60K/I. CH-47D. ITH	ion to
60A/L, and EH-60 aircraft. The current requirement is for SIRFC systems to equip all AH-64D and MH-47/60 SOA aircraft, and portions of the Army UH-60 and CH-47 aircraft.	ld Ivavy all. T aircraft. T CH-47 aircr	he cul aft.	rent	equire	emeni	is for	SIRF	Sary in	ems t	nbə o	ip all,	AH-64	D and	MH-47	/E0 S(	Mi r-ou	aft, and	d portio	or:- ns of the
DEVELOPMENT STATUS / MAJOR DEVELOPMENT	IS / MAJOR D	EVELO	PMEN		MILESTONES:	is:													
Engineering Chan	Caoaca or	7 / 1	2	2000	+400	740741	200	7 90%	0	Ü									
Engineering Change Proposal (ECF) Development Award - 3QF130 (AFACHE)  Type Classification Approval - 4QFY00 (APACHE)	je Proposa n Approval -	4 P P	700 (	APAC	HE)	ward	, ,	061	74	Ė									
Integration Development (SOA)  Production Contract Award - 3O FY01 (SOA)	pment (SO)	& S S ₹	01 (S	(A)															
Production Hardware Delivery - 3Q FY03	are Delivery	- 30 - 30	FY03	3															
First Kit Applied - 3Q FYU3	3Q FY03																		
Installation Schedule:		Ì				١	000		-	Ι,			-	١					
	Totals 1	7	2 3			-	2	۳	+	-	2001	~	-	-	2002	3	7	2003	203
			<b>'</b>					,	-			·	<u> </u>	-	1				-
Outputs					_			_	$\dashv$			$\dashv$	_		_				
<u></u>	FY 2004	400			16	FY 2005			"	FY 2006			"	FY 2007			2		Totals
	1 2	3	4			2	3	4	1	2	3	4	1	2	3	<u>4</u>	Complete		
Inputs		-			ဗ	3	3	3	3	က	3	3							
Outputs						3	3	3	3	3	3	3		_					
METHOD OF IMPLEMENTATION:	NTATION:				ADM	NISTR	ADMINISTRATIVE LEADTIME	EADTI	ΝË	9		Months	PRO	PRODUCTION LEADTIME:	N LEA	TIME:	18	Months	
Contract Dates:		FY 1999	0				FY 2000	00					FY 2001	001					
Delivery Date:		FY 1999	0				FY 2000	00					FY 2001	001					

П		,		<del>s</del>	8.3	157.1				4.5							0.2	0.2	1.8	2.2	174 B
			OTAL		56				,								_	_	12	12	ľ
February 2000			_	Qţ	``											,,,,,,					
Februs				\$																	
			17	Qty												*****				12	1
Ш			_	o 						0.2									1.8	α τ	5:0
Date			FY 2005	\$			Breeder (1971)														
Ш			F	Qt															12	12	1
Ш			4	\$	3.9					0.3								0.2		0	10
			FY 2004	λ	72													~		-	-
	37			Qţ	3.8					0.3							0.2			00	1 a
	11-218		FY 2003	₩						00							0				
	-92-0		FY	St.	12												-			-	
Ш	AN/ALQ-211 Suite of Integrated Radio Frequency CMS 1-92-01-2187		20	es es	0.3	12.2				0.7											14.2
	ncy C		FY 2002	≥	~					<u>.</u>									x 1.7000007 4700 x 700		+
NO NO	enbə.		_	Q Ç	က်	3.0				0.3											1 2
IFICAT	dio Fı		FY 2001	8	0	n				00			F#4-F#4-F#4-NANANANANANANANANANANANANANANANANANANA								
MOD	ed Ra		占	ĝ	~																
INDIVIDUAL MODIFICATION	egrate		00	€		9.8				0.0											117
INDI	of Inte		FY 2000	Oty	MAN							. <u> </u>									-
	Suite		$\vdash$	Ø		5.1				<u>ლ</u>										+	1
	-211 (		FY 1999	↔						0											
	/ALQ		F	Qţ																	
	AN	8	وَ بِي	\$		127.0															0 404
		FV 1998	and Prior	Qty			***************************************	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,										n			
		L		a										<b>'</b> 0							1.
	(Cont):	FINANCIAL PLAN: (\$ in Millions)				Installation Kits, Nonrecurring Equipment	ng rders			toud				FY 1998 & Prior Eqpt Kits FY 1999 Fant Kits							1
	TITLE	ri (\$ in				Nonre	recurri ange C	ţ	ent	ement			rdware	or Equ	- Kits	- Kits	- Kits	- Kits	- Kits	Ť	1
	. NOIL	L PLAF			EMENT ity n Kits	n Kits, 1t	nt, Nor ng Ch		daipin daipm	Manag	•		of Har	8 & Pri	o Eqpt	1 Eqpt	2 Eqpt	4 Eqpt	5 Eqpt	-Kits	stalline
	MODIFICATION TITLE (Cont):	ANCIA			RDT&E PROCUREMENT Kit Quantity Installation Kits	Installation Equipment	Equipment, Nonrecurring Engineering Change Orders	Data Training Equipment	Support Equipment	Program Management			Installation of Hardware	FY 1998 & Prior Eqp FY 1999 Eapt Kits	FY 2000 Eqpt Kits	FY 2001 Eqpt - Kits	FY 2002 Eqpt kits FY 2003 Eqpt kits	·Y 200	FY 2005 Eqpt kits	TC Equip-Kits	Total installment
	MOI	ΣÌ			RDT&E PROCU Kit Que	<u> </u>	묘區	Data	no.	Ę 6			Inst	u	. 4	ш.	U	. 4	<u> </u>	۲ ۲	- +

		Exhibit P-40, Budget	0, Budget It	Item Justification Sheet	ation Sheet			Date:		February 2000		
Appropriation / Budget Activity/Serial No:	al No:					P-1 Item Nomenclature	Ire:					
AIR	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	ENT / 2 / Modification	of Aircraft					ASEN	ASE MODS (ATIRCM) (AA0722)	7722)		
Program Elements for Code B Items:	:SL			Code:	Other Related Program Elements:	am Elements:						
,	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prod
Proc Qty												)
Gross Cost	0.0	0.0	0.0	0.0	4.9	0.0	12.0	12.0	21.1	31.0	199.5	280.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0:0	0.0	0:0	0.0	4.9	0:0	12.0	12.0	21.1	31.0	199.5	280.5
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	4.9	0.0	12.0	12.0	21.1	31.0	199.5	280.5
Flyaway U/C												
Wpn Sys Proc U/C												

The system consists of Common Missile Warning System (CMWS), Advanced Threat Infrared Jammer (ATIRJ), Advanced Threat Infrared Countermeasure Munitions countermeasures. It is the next generation of infrared countermeasures for use on rotary and fixed wing aircraft. It is applicable to Army, Air Force, and Navy aircraft. countermeasures to cause the missile to miss the aircraft. Countermeasures include laser jamming and dispensing decoys. The CMWS component system is a joint existing, current generation host platforms for more effective protection against a greater number of IR guided missile threats than afforded by currently fielded IR U.S. Navy, U.S. Marine Corps, and U.S. Air Force program to develop, test, and integrate common missile warning on tactical aircraft and rotorcraft for IR guided DESCRIPTION: The ATIRCM/CMWS is a U.S. Army tri-service program to develop, test, and integrate defensive infrared (IR) countermeasures capabilities into missile threat warning. The ATIRCM/CMWS is the core systems of the U.S. Army's modular Suite of Integrated Infrared Countermeasures (SIIRCM). The total (AIRCMM), and Electronic Control Unit (ECU). It is designated to detect when the aircraft is being engaged by a threat missile, and provide appropriate objective for the ATIRCM/CMWS in support of Army aircraft is 1047.

utilizing both existing flare decoys. The ATIRCM/CMWS will replace the existing AN/ALQ-156 or AN/AAR-47 missile approach detectors, AN/ALQ-144A countermeasure sets, and/or the M-130 general purpose dispensers, depending on the host platform configurations. For the Navy and the Air Force, no existing equivalent systems exist. JUSTIFICATION: The Army, as the lead service, has the responsibility of providing active, directional countermeasures jamming and advanced dispensing capability

						ION	VIDUAL	INDIVIDUAL MODIFICATION	CATION							Date		Februa	February 2000	
MODIFICATION TITLE:	: Adva	anced	Threa	ıt Infra	Advanced Threat Infrared Countermeasures (ATIRCM) TBD	Junten	measu	res (A	TIRCN	1) TBD										
MODELS OF SYSTEMS AFFECTED: AH-64D, MH	IS AFFEC	TED: ,	AH-64D	, MH-47	1-47D/Е, МН-60К/L, ЕН-60, UН-60, 0Н-58D, СН-47D	4-60K/L,	EH-60,	UH-60,	3H-58D,	CH-47[	0									
DESCRIPTION / JUSTIFICATION:	<b>IFICATIO</b>	ÿ											E							
The ATIRCM is a requirement for current generation Army aircraft. The ATIRCM/CMWS is one system which is the core of a Suite of	a requir	emen	t for a	urrent	gener	ation /	\rmy a	ircraft.	The /	ATIRC	M/CM	WS is	one s	/stem	which	is the	core of	a Suite	, of	
Integrated Infrared Countermeasures (SIIRCM). This Suite will provide active and passive infrared countermeasures (IRCM) protection	ed Cour	terme	easure	11S) SS	KCM)	Inis	Suite	will pro	vide a	ctive a	and pa	SSIVE	intrare(	d coun	iterme	asures	(IRCM)	protect	ition	<u></u>
against initiated guided weapons. The system is designed to meet operational requirements for a modular inclusive system capable of providing awareness and self-protection jamming countermeasures. The system is applicable to AH-64D, MH-47D/F, MH-60K/L, EH-60, 11H-60, 0H-	guided (	weapt	iamr	ing sy	stern is	neasi.	res T	he svs	opera fem is	applic	equile sable to	AH-C	34D a	H-47		4-60K	/I. FH-6	9-HO 00	000	ກ ≣ +
58D and CH-47D aircraft. The program has been designated a tri-service program, with application to Air Force and Navy aircraft.	) aircraf	f. T	e prog	ıram h	as be	sap us	ignate	da tri-	service	e prog	ram, w	vith ap	plicatic	n to A	ir Forc	se and	Navy ai	ircraft.	•	
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	TUS / MAJ	JOR DE	EVELOF	MENT	MILEST	ONES:														
Milestone I/II - Jun 95	n 95				LR	IP/Pro	duction	LRIP/Production Hardware Delivery - Jul 04	ware [	<b>Jeliver</b>	y - Jul	95								
EMD Contract Award - Sep 95	vard - S	ep 95			這	st Kit,	Applie	First Kit Applied - Oct 04	4											
System Design Review - Mar 96	eview -	Mar (	96																	
Preliminary Design Review - Jun 96   Critical Design Review - Feb 97	gn Revi∈ eview - ∣	эw - J Feb 9	96 un 7																	
LRIP/Production Contract Award - Jun (	Contrac	t Awa	ırd - Jı	n 02																
Installation Schedule:																				
	PrYr		FY 1999	366			FY 2000	00			FY 2001	11			FY 2002			FY	FY 2003	
	Totals	-	2	က	4	-	2	ဗ	4	-	2	က	4	-	2	က	4	1 2	3	4
Inputs Outputs																		დ დ 4	ω 4	ε 4
-	}															-				
		FY 2004	904			FY 2005	305			FY 2006	ဖွ			FY 2007			To	_		Totals
	_	2	3	4	F	2	3	4	F	2	3	4	-	2	3	4	Complete	0)		
Inputs					17	17	17	17	21	21	21	25	25	52	25	24	752			1047
Outputs	7	7	7	7	17	11	17	17	21	21	21	22	52	22	22	74	752			1047
METHOD OF IMPLEMENTATION	ENTATIO		1		1	NDMINE	STRATI	ADMINISTRATIVE LEADTIME	TIME:		3 MG	Months	Ж.	נסחמס	PRODUCTION LEADTIME:	ADTIME		15 Months		
Contract Dates:			FY 1999				Ľ	FY 2000					F	FY 2001						
Delivery Date:		-	FY 1999				ا	FY 2000					۱	FY 2001						

FINANCIAL PLAN; & in Millions   Private   Pr				INDIVID	INDIVIDUAL MODIFICATION							Date	te te		February 2000	2000	
FY 1999         FY 2000         FY 2000         FY 2000         FY 2004         FY 2005	MODIFICATION TITLE (Cont):	Ac	Ivanced Thre	at Infrared C	ounterme	asures	(ATIRCI	м) твр									
FY 1998	FINANCIAL PLAN: (\$ in Millions)	_															
Nomecuming and Trials of T		<u> </u>	77.4000	2000	2	100	1000		0000		100	200	<u> </u>	ļ		HOH	
Nonrecurring recurring may orders and the following recurring may orders and the following recurring may orders and the following recurring and the following recurring are orders and the following recurring and the following recurring are considered as we have a following recurring and the following recurring recurring and the following recurring recurring and the following recurring recur		Oty \$	<u> </u>	200	v 20	+	3	0		Z AO	8		+		₩	20	<del>ده</del> اد
Nonrecurring Nonrecurring Nonrecurring necurring necurring and nent and and and and and and and and and and	RDT&E	ļ	ļ		î	-	_	$\dagger$	ļ			-	<del> </del>		-		
out ders	PROCUREMENT																
Curring and class and class are seen as a seen and class are seen as a seen and class are seen as a seen and class are seen as a seen as a seen and class are seen as a seen as	Kit Quantity											******					
curring rders rder	Installation Kits										6.8	68	7.3		126.5	1047	147.1
rders  to - Kits  the kits  since the kits  si	Installation Kits, Nonrecurring						·-				12.2		16.1		10.4		55.3
riders  Port  1- Kits	Equipment											to pt treat about					
rders  Poort  1 - Kfils  2 - Kfils  2 - Kfil	Equipment, Nonrecurring									,						******	
Foot the Kritis is so that the control of the contr	Engineering Change Orders																
to-Kits the state of the state	Data								******			**********		*******			
Function of the control of the contr	Training Folitipment																
Fort This is the state of the s	trough toward						ar weller of the					********					
t - Kits  s s tis tis tis tis tis tis tis tis	Support Equipment													**********			
Fort port to the first state of	Other							-	.,		-	********		********			
r – Kits s tits tits tits tits tits tits tit	Interim Contractor Support						***************************************										
t – Kits s s tits tits tits tits tits tits t															-		
t – Kits s s tis tits tits tits tits tits ti							<del>,</del>							*************			
to the kits its its its its its its its its its																	
t – Kfts  s  tits																	
t – Kits s ts tits lits lits lits lits lits l					31 <i></i>												
Egpt – Kits Kits Kits Kits Kits Kits Kits Sitis 3 kits 3 kits 33 kits 68 7.6 939   12 0.9 28 2.1 68 7.6 939   12 0.9 12 0	Installation of Hardware											**********					
Kits       Kits         Kits       Kits         Kits       12         11 kits       12         12 kits       28         33 kits       28         33 kits       33 kits         83 kits       68         7.6       939         14 Cost       12.0         12.0       21.1         12.0       21.1         31.0       12.0	FY 1998 & Prior Eqpt - Kits																
Kits       Kits       3 kits       11 kits       11 kits       33 kits       33 kits       83 kits       68 7.6       939       14 cost       12 0.9       13 0.9       13 0.9       13 0.9       13 0.9       13 0.9       12 0.9       12 0.9       12 0.9       12 0.9       12 0.9       13 0.9       13 0.9       13 0.9       13 0.9       13 0.9       13 0.9       13 0.9       13 0.9       13 0.9       13 0.9       13 0.9       12 0.9       13 0.9       12 0.9	FY 1999 Eqpt Kits											•••••••••••••••••••••••••••••••••••••••					
Kits       3 kits       11 kits       11 kits       33 kits       83 kits       68       76       939       12       13	FY 2000 Eqpt Kits							-				******					
3 kits 11 kits 33 kits 83 kits 83 kits 11 kits 11 kits 12 0.9 28 2.1 68 7.6 939 11 Cost 12 0.9 28 2.1 68 7.6 939 11 Cost	FY 2001 Eqpt - Kits					-					-,	********					
11 kits 33 kits 83 kits 83 kits H Cost 12 0.9 28 2.1 68 7.6 939 11 0.9 28 2.1 68 7.6 939 11 0.9 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	FY 2002 Eqpt 3 kits											***********					
33 kits 83 kits Ht Cost  12	FY 2003 Eqpt11 kits											•••••				12	0.9
83 kits 68 7.6 939 11 0.9 28 2.1 68 7.6 939 11 Cost	FY 2004 Eqpt 33 kits								********	78	2.1	*********				28	2.1
It Cost	FY 2005 Eqpt 83 kits											89	9.7	••••••		89	7.6
12.0   12.0   2.1 68 7.6 939   12.0   12.0   21.1   31.0   13.0	TC Equip-460 Kits							_						939	62.6	939	62.6
12.0 12.0 21.1 31.0	Total Installment										2.1	89	7.6		62.6	1047	73.2
	Total Procurement Cost				_		,	12.0	12.0		21.1		31.0		199.5		275.6

								Date:				
		Exhibit P-40, Budget I		tem Justification Sheet	ation Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	ial No:					P-1 Item Nomenclature:	ure:					
AIR	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	NT / 2 / Modification	of Aircraft						GATM (AA0701)			
Program Elements for Code B Items:	rs:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	0.0	0.0	0.0	7.0	10.1	54.2	70.2	70.1	70.1	101.2	382.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	0.0	7.0	10.1	54.2	70.2	70.1	70.1	101.2	382.9
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	7.0	10.1	54.2	70.2	70.1	70.1	101.2	382.9
Flyaway U/C												
Wpn Sys Proc U/C												

requirements will be met with a variety of communication, navigation, and surveillance equipment, entailing the upgrade of existing equipment and procurement of new Surveillance and Air Traffic Management (CNS/ATM) programs. Current ground based navigation aids will be phased out of service as the world transitions to digital, data (non-voice), and space based navigation systems. Military aircraft will face flight restrictions (altitude and location dependent) if not GATM equipped. GATM Description: Global Air Traffic Management is the military equivalent of the International Civil Aviation architecture known as Communications, Navigation, equipment for both rotary and fixed wing aircraft.

Mode-S transponder for IFR flight after Jan 03 and for VFR flight after Jan 05. Rotary Wing Mode-S transponder procurement begins in FY 02 and installations continue Instrument Landing System. Therefore, a contingency stockage of 70 units will be P-ILS capable to support deployments to Europe. Additionally, Europe mandates a recurring engineering and modification of existing systems, AN/ARN-147 and AN/ARN-123 (Rotary Wing aircraft). The P-ILS impacts 271 Army helicopters (CH-47, UH-60A/I, and SOF) currently in Europe. Also, all US helicopters rotating to Europe must be equipped with P-ILS in order to execute precision approaches using the through FY 07. For Fixed Wing, elimination of obsolete communication and navigation systems will enhance reliability and maintainability by employing commercial Justification: FY01 funding will procure GATM equipment for C-20, C-12, and RC-12 (Fixed Wing aircraft), and Protected Instrument Landing System (P-ILS) nonsystems, thereby improving aircraft availability for mission requirements.

Exhibit	Exhibit P-40M Budget Item Justification Sheet	em Justific	ation Sheet			Date		February 2000	:	
Appropriation / Budget Activity/Serial No.				P-1 Item Nomenclature						
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	fication of Aircraft						GATM (AA0701)			
Program Elements for Code B Items		Code	Other Related Program Elements	m Elements						
Description	Fiscal Years									
OSIP NO. Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Global Air Traffic Management(GATM) - Fixed Wing	ixed Wing									
GATM-FW U	0.0	0.0	7.0	6.9	25.7	43.0	33.2	42.7	85.5	244.0
Global Air Traffic Management - Rotary Wing	ing			AND THE REAL PROPERTY AND THE PERSON OF THE				and the state of t		
GATM-RW U	0.0	0.0	0.0	3.2	28.5	27.2	36.9	27.4	15.7	138.9
Totals	0.0	0.0	7.0	10.1	54.2	70.2	70.1	70.1	101.2	382.9
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				INDIVIDUAL MODIFICATION	/ODIFIC/	\TION						Date	Fe	February 2000	
MODIFICATION TITLE:	Global Air Traffic Management(GATM) - Fixed Wing GATM-FW	ic Manage	ement(G	ATM) - F	-ixed W	ing GA	TM-FW								
MODELS OF SYSTEMS AFFECTED: C-12 series;	S AFFECTED: C-12 se		RC-12 series; C-23; C-26; C-37; C-20F, E; and UC-35	23; C-26; C	37; C-20	F, E; and	1 UC-35								
DESCRIPTION / JUSTIFICATION:	FICATION:														
Description: This	Description: This effort will update and	and mod	ernize co	mmunic	ation, n	avigatic	on, and	surveilk	ance eq	luipmen	t to futu	modernize communication, navigation, and surveillance equipment to future federal and current	l and c	urrent	
international regu	international regulatory requirements, al	ts, allow v	low worldwide deployments and continue safe operations into the 21st Century.	e deploy	ments a	ind cont	linue sa	fe opera	ations ir	to the	21st Cei	ıtury.			
Justification: As	Justification: As currently equipped, aircraft are not suitable for worldwide deployment nor capable of using modern navigation and air traffic	J. aircraft	are not s	uitable f	or work	dwide d	eplovme	ent nor	capable	of usin	a mode	rn naviga	ation ar	nd air tra	affic
control facilities.	control facilities. There is a variety of equipment that will be required by GATM including: datalink technology, SATCOM, communication	of equip	ment tha	t will be	require	d by GA	TM inc	uding: (	datalink	techno	logy, S/	TCOM,	comm	unication	_
management unit	management units, Electronic Flight Information System, surveillance equipment, radios, and navigation equipment and multi-mode	it Informa	tion Syst	em, sun	/eillance	equip	ment, ra	idios, ai	nd nav	igation of	equipme	ent and m	nulti-m	ode	
page represent a	receivers. GATIM requirements are evoiving and will require additional systems in the hear future. The kit quantities reflected on the aircraft page represent a wide variety of avionics kits with different mixes each fiscal year. Additionally, kit configurations vary based on the aircraft configurations to install a configuration of the config	evolving ionics kits	arid will r s with dif	equile a ferent m	iddilloria ixes ea	al syster ch fisca	l year.	Addition	nally, kit †6.702	rie Kilt t configi	quantitu Jrations	vary bas	sed on	the airc	raft
	one which and will be medical. Consequently, for different way agrifficantly from year to year and more praction.	500000	itiy, mit d	1000	, m		in (in in)	300	no hod	2	שוא ויוס	2			
DEVELOPMENT STATUS / MAJOR DEVELOPMEN	JS / MAJOR DEVELO	PMENT MIL	IT MILESTONES:	0	7	ā	,	:							
Contract Award			Plar	Planned Jan 00	auued	Σ	Acc	Accomplishments	ments						
			5	3											
Installation Schedule:															
	Pr Yr FY 1999	- 1		FY 2000			FY 2001	201	4	<u> </u>	FY 2002			FY 2003	
	Totals 1 2	က	4 1	2	3	4	2	3	4	=	2 3	4	-	2 3	4
Inputs					Ψ-	<del>-</del>	က	က	4	2	2 9	7	12	14 14	14
Outputs						<u>_</u>	2	4	4	5	6 7	7	12	14 14	14
	FY 2004		FY 2	FY 2005		FΥ	FY 2006		1	FY 2007			To		Totals
		4	1 2	3	4	-	2 3	4	-	2	3 4	Complete	ete		
Inputs	16 16 17	17		5	15										215
Outputs	16 16 17	17	14 14	15	15										215
METHOD OF IMPLEMENTATION:	ENTATION:		ADMIN	ADMINISTRATIVE LEADTIME:	E LEADTI	ME:	က	Months	PRC	DDUCTIC	PRODUCTION LEADTIME:	IME: 3	Months	ths	
Contract Dates:	FY 1999		Enter Date	Ē	FY 2000	Jan 00	_		<u>F</u>	FY 2001	Jan 01				
Delivery Date:	FY 1999		Enter Date	Ŧ	FY 2000	Jun 00	_		F.	FY 2001	Jun 01				

MODIFICATION TITLE (Cont):																		
		Global Air Traffic Management(GATM) - Fixed Wing GATM-FW	raffic ∧	∕lanage	ment((	SATM) -	· Fixed	Wing G	ATM-FV	>								
FINANCIAL PLAN: (\$ in Millions)																		
	FY 1998 and Prior	FY 1999		FY 2000	  -	FY 2001		FY 2002	F	FY 2003	FY 2004	004	FY 2005	305	2		TOTAL	1
	aty \$	φ		Qty	$\vdash$	Qty \$	0	\$	ğ	89	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E PROCUREMENT Kit Quantity																		
Installation Kits				7	2.5	9	4.7	25 22.3	3 54	38.3	99	29.9	28	37.4	276	72.2	491	207.3
Equipment				ad des automotives en even											***************************************	***		
Equipment, Nonrecurring				-200-00-0											***************************************			
Engineering Change Orders				·						ç	***************************************	-			************	0.5		1.1
Uala Training Equipment					<u>-</u>		 ;	·	<del>-</del>	3		;	***************************************	;		;		<u>:</u>
Support Equipment													***************************************	<del></del>			***************************************	
Other								· di d P a dadama		************			***************************************					
Interim Contractor Support										************							•••••	
															••••			
															-1			
			<u> </u>											<del>,</del>				
										***************************************								
Installation of Hardware		**********						***********										
FY 1998 & Prior Eqpt Kits	inda bereser							**********										
FY 1999 Eqpt Kits							-			,							,	
FY 2000 Eqpt - 2 Kits				7	4.4								•••••				7	4.4
FY 2001 Eqpt 10 Kits					<del></del>	9	2.1						•••••		,		9	2.1
FY 2002 Eqpt 25 kits							.,	25 3.	3.3				***************************************		••••••		25	3.3
FY 2003 Eqpt 54 kits									52	4.6			••••••				54	4.6
FY 2004 Eqpt 66 kits											99	3.2	***************************************			•	99	3.2
FY 2005 Eqpt 58 kits													28	5.2			28	5.2
TC Equip- 276 Kits													.,,,.		276	12.8	276	12.8
Total Installment				2	4.4	10		25 3.	3.3 54		99	3.2	28	5.2	276	12.8	491	35.6
Total Procurement Cost					7.0		6.9	25.7	.7	43.0		33.2		42.7		85.5		244.0

						M	/IDDAL	INDIVIDUAL MODIFICATION	ATION							Date		February 2000	2000	
MODIFICATION TITLE:	Glob	al Air	Traffic	Man	ageme	int - R	otary V	Global Air Traffic Management - Rotary Wing GATM-RW	ATM-F	 				 		L, C				
DESCRIPTION / JUSTIFICATION:	IFICATIO		,475 ,0,4	09-H0	A/L/L+/K	J/X, EH	-60, LUF	1-1, A/MI	-6, AH	-64A/D,	OH-58D	), MH-6(	JL/K, MF	14/U/E,	and CH-	7/0/4				
High priority requirements funded will address communications and surveillance equipment necessary for airspace access for rotary wing aircraft operations (peace time and war-time missions) in Europe. The FY01/02 funding will procure P-ILS (AN/ARN-147 and AN-ARN-123) to	uiremen Is (peac	ts fun	ded wi	III add war-tir	ress con me mis	ommui sions)	nication in Eur	ns and rope. T	survei	illance '01/02	equip	ment r	procur	ary for e P-ILS	airspa 3 (AN//	ddress communications and surveillance equipment necessary for airspace access for rotary wing -time missions) in Europe. The FY01/02 funding will procure P-ILS (AN/ARN-147 and AN-ARN-12	ss for r 7 and A	otary v	ving N-123)	<b>£</b>
take care of all required aircraft in Europe (271 helicopters). This affects CH-47D, UH-60A/L, and SOF aircraft only, the aircraft currently equipped with ILS. Their will be 70 additional P-ILS procurement modifications (plus spares) to equip aircraft as they are deployed to	equired S. The	aircra	ift in E be 70	urope additi	(271 l	nelicor ILS p	oters). rocure	This a ment n	ffects	CH-47 ations	'D, UH (plus s	I-60A/I spares	, and ) to eq	SOF a	ircraft c craft as	only, the they ar	aircrat	ft curre	ntly	
Europe. Mode-S transponders will be required for all IFR flights in Europe after 1 January, 2003. Funding will complete the non-recurring engineering efforts for UH-60, EH-60 and CH-47, UH-60 and EH engineering efforts for UH-60, EH-60 and CH-47, UH-60 and EH	transp ts for U	onder IH-60,	s will b EH-60	oe red ) and	uired f CH-47	or all I . Fun	IFR flig ding w	hts in I	Europe procui	e after re and	1 Janu install	uary, 2 Mode	-S trar	Fundir Ispond	ng will c ers for	equired for all IFR flights in Europe after 1 January, 2003. Funding will complete the non-recurring and CH-47. Funding will also procure and install Mode-S transponders for the CH-47, UH-60 and EH-	e the ne 47, UF	on-recu 1-60 ar	urring Id EH-	
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	US / MA.	JOR DE	VELOP	MENT	MILEST	ONES:	lann	STONES:		- Isher		dwwo	Acommplished							
	Pfod Contract Award (P-ILS) Prod Contract Award (Mode-S)	ntract	Award Award	i (P-IL I (Moc	$\widehat{\mathcal{S}}$	Jan 01 Apr 02	25	1				•								
Installation Schedule:																				
	PrΥr		FY 1999	66			FY 2000	00			FY 2001	_		ш	FY 2002			FY 2003	03	
	Totals	+	7	3	4	-	2	3	4	-	2	3	4				1	2	3	4
Inputs Outputs										-				89	67 67 68 67	79 7	55 67	55	55 55	55 55
		FY 2004	904			FY 2005	905			FY 2006	9	-	-	FY 2007			2		ř	Totals
	Ψ-	7	3	4	-	2	3	4	1	2	ဇ	4	-				Complete			
Inputs	33	33	33	33	104	105	105	105	81	81	81	8	33							1496
Outputs	22	33	33	33	33	104	105	105	105	81	81	81	80	33	33 3	33 34				1496
METHOD OF IMPLEMENTATION: OLR Team	ENTATIO	Ä: OLF	< Team		Q.	NDMINIS	STRATIV	ADMINISTRATIVE LEADTIME	TIME:		2	Months	PR	PRODUCTION LEADTIME:	ON LEAL	TIME:	9	Months		
• •		ш.	FY 1999		Enter Date	ē	L	FY 2000	ដ	Enter Date	_		₹	FY 2001	Enter Date	Date				
Delivery Date: Oct 01		_	FY 1999	-	Enter Date	<u>ē</u>	Щ	FY 2000	딥	Enter Date			F	FY 2001	Enter Date	Date				

			INDIVIDU	INDIVIDUAL MODIFICATION	NOL					ľ	Date		February 2000	2000	
MODIFICATION TITLE (Cont):	์ อ	Global Air Traffi	ffic Management - Rotary Wing GATM-RW	int - Rotary \	Ving GA	TM-RW									
FINANCIAL PLAN: (\$ in Millions)	FY 1998	-													
	and Prior	7 199	FY 2000	FY 2001	FY	FY 2002	FY 2003		FY 2004	FY 2005	900	TC		TOTAL	
	Oty \$	Oty \$	Qty \$	Qty \$	Öţ	49	Qty	\$ Oth	\$	άţ	€>	δ	<del>S</del>	Q Ç	₩
RDT&E						****									
PROCUREMENT						,,			***						,
Kit Quantity				341 2	2.8 220	12.6	132		419 24.0	323	18.6	131	7.4	1566	72.3
Installation Kits						2.5		0.7	3.6		3.1	** ******	4.		11.6
Installation Kits, Nonrecurring					0.1	11.9		16.5	6.5				2.0		37.0
Equipment		****													
Equipment, Nonrecurring														************	
Engineering Change Orders															
Data															
Training Equipment												<u>-</u> .			
Support Equipment															
Other - PM Admin & Marix Sot						1			14		14		0	***********	r,
Interim Contractor Support					?	4		?	•		<u>:</u>				3
												*****			
			******				·/************************************								
							***********								
Installation of Hardware			******						v						
FY 1998 & Prior Eqpt Kits			account on the												
FY 1999 Eqpt Kits												•			
EV 2000 East Kits															
EV 2004 Equt 274 Kits			•••		27.4	, ,						********		27.4	ć
F1 2001 Edpt 271 Kits					7			,						- 17	2
FY 2002 Eqpt220 kits							220	2.1						220	2.1
FY 2003 Eqpt 132 kits		-,,					•••••	<b>←</b> —	132 1.1					132	<del>[</del> :
FY 2004 Eqpt 419 kits				-						419	4.3			419	4.3
FY 2005 Eqpt 323 kits			meetic con									323	3.1	323	3.1
TC Equip- 131 Kits												131	1.2	131	1.2
Total Installment					271	0.3	220		132 1.1	419	4.3	454	4.3	1496	12.1
Total Procurement Cost				9	3.2	28.5		27.2	36.9		27.4		15.7		138.9
-															

								Date:				
		Exhibit P-40, Budget		tem Justific	Item Justification Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	rial No:					P-1 Item Nomenclature:	ire:					
AIF	AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	:NT / 2 / Modification	of Aircraft					MODIF	MODIFICATIONS < \$5.0M (AA0725)	A0725)		
Program Elements for Code B Items:	ms:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	27.2	1.8	1.7	1.4	2.6	0.0	0.0	0.0	0.0	0.0	0.0	34.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	27.2	1.8	1.7	1.4	2.6	0.0	0.0	0.0	0.0	0.0	0.0	34.6
Initial Spares												
Total Proc Cost	27.2	1.8	1.7	1.4	2.6	0.0	0.0	0.0	0.0	0.0	0.0	34.6
Flyaway U/C												
Wpn Sys Proc U/C												

standards, allowing worldwide deployments, and upgrade capability for continued safe operations into the 21st Century. This line will update the C-23, and other Fixed Wing aircraft to meet future avionics requirements resulting from worldwide navigation transition to Global Positioning System and the Chairman of the Joint Chief of DESCRIPTION: This modification line updates and modernizes aircraft communication, navigation, surveillance, and safety equipment to current international Staff Master Navigation Plan requirements.

During deployments in support of Desert Storm/Desert Shield/Provide Comfort, only selected aircraft with non-standard modifications were capable of being deployed to Management airspace. Worldwide deployments using modern navigation, communications and surveillance equipment is required by evolving international regulations. JUSTIFICATION: Funds for FY 01 are required for the Army's Fixed Wing aircraft to remain current and have unrestricted access to the rapidly changing Air Traffic and within the theater. Elimination of obsolete communication and navigation systems will enhance reliability and maintainability by employing current commercial systems thereby improving aircraft availability and cockpit standardization.

Exhibit P-40	tification Shee
	Budget Item Jus

Budget Activity ents for Code B	PROCUREMEN	Exhibit P-40, Budget		toodS notitooffice. I mot	tion Choot					0000		
Appropriation / Budget Activity/Serial No: AIRCRAFT PI Program Elements for Code B Items: Proc Qty	PROCUREMEN			an Justinea	iaalie iloli					rebruary 2000		
		/Serial No: AIRCRAFT PROCUREMENT / 3 / Spares and Repair Part	lepair Part			P-1 Item Nomenclature:	ure:	SPAF	SPARE PARTS (AIR) (AA0950)	(0360)		
				Code:	Other Related Program Elements:	am Elements:						
			,									
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Gross Cost	0.0	0.0	18.8	27.5	15.9	15.2	23.8	38.7	23.3	23.0	0.0	186.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	18.8	27.5	15.9	15.2	23.8	38.7	23.3	23.0	0.0	186.1
Initial Spares												
st	0.0	0.0	18.8	27.5	15.9	15.2	23.8	38.7	23.3	23.0	0.0	186.1
Flyaway U/C												
Wpn Sys Proc U/C												
<u></u>	des for p	rocurement	Provides for procurement of spares to support initial fielding of new or modified end items.	support initia	I fielding of I	new or modi	fied end item	ıs.				
JUSTIFICATION: The funds in this account procure depot level reparable (DLR) secondary items from the Supply Management, Army Capital Fund. To provide initial support, funds are normally required in the same year that end items are fielded. Initial spares breakout:	funds in t	this account pport, funds	procure deposare normally	ot level repa	rable (DLR) the same ye	secondary it ear that end i	ems from the items are fiel	e Supply Ma Ided. Initial s	nagement, A spares break	rmy activity o	The funds in this account procure depot level reparable (DLR) secondary items from the Supply Management, Army activity of the Army Working rovide initial support, funds are normally required in the same year that end items are fielded. Initial spares breakout:	/orking
		FY 1999	FY 2000	FY 2001								
09-HD		3481										
Quickfix		768										
Guardrail		1819	5802									
Avionics		4078	1998	2027								
ASE		581										
Longbow		16759	8134	13140								
Total		27486	15934	15167								

		Exhibit P-4	0, Budget It	Exhibit P-40, Budget Item Justification Sheet	tion Sheet			Date:		February 2000		
Appropriation / Budget Activity/Serial No:	al No:					P-1 Item Nomenclature:	īē:					
AIRCRAF	AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	4 / Support Equipme.	nt and Facilities					AIRCRAFT SUR	AIRCRAFT SURVIVABILITY EQUIPMENT (AZ3504)	AENT (AZ3504)		
Program Elements for Code B Items:	:5:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	916.0	0.3	8.0	11.0	15.3	0.0	32.3	13.3	13.2	16.0	0.0	1025.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	916.0	6.0	8.0	10.4	15.3	0.0	32.3	13.3	13.2	16.0	0.0	1024.8
Initial Spares												
Total Proc Cost	916.0	6.0	8.0	10.4	15.3	0.0	32.3	13.3	13.2	16.0	0:0	1024.8
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: A3504 is a summary rollup for ASET IV, AZ3506, AN/AVR-2, AZ3508 and AN/ALQ-211, Suite of Integrated Radio Frequency Countermeasures (SIRFC)

recognize surface-to-air-missiles (SAM) and anti-aircraft artillery (AAA) threats in order to employ the correct aircraft threat avoidance tactics. Eight systems have been The Aircraft Survivability Equipment Trainer IV (ASET IV) is a ground based, mobile aviation threat emitter simulation and training system, which enables aircrews to The AN/AVR-2A, AZ3508, is a passive threat laser warning system that alerts the aircrew that they are being targered by threat forces allowing the produced and are being upgraded to simulate the most current SAM and AAA threats, as well as to locate, identify, and track aircraft at night through the use of night Advanced Threat Radar Jammer (ATRJ). The SIRFC will replace the current the Aircraft Survivability Equipment (ASE) AN/APR-39, AN/APR-144, AN/ALQ-136 and AN/ALQ-162. SIRFC is an ASE project with OSD oversight and high joint interest. The Air Force Special Operations Command has selected SIRFC to be its bus aircrew to engage the target or maneuvers to break the targeting. The SIRFC, AZ3508, consists of the Advanced Threat Warning Receiver (ATRWR) and the controller and sensor fusion processor for the CV-22. It has application to other Air Force and Navy aircraft. vision cameras.

# JUSTIFICATION:

proliferated improvements in millimeter wave, pulse Doppler, and multi-spectral radar. The current requirement is for SIRFC systems to equip all Army aircraft (3156 SIRFC systems). FY00 funding provides for project management, ASET IV nonrecurring engineering and system upgrades and AN/AVR-2A acquisition and fielding. The SIRFC system is required to enhance the surviviability Army aircraft against the newer, more capable threat air defense systems employing the latest and

Exhibit P-5, Weapon Aircraft Cost Analysis	4	Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	ion/ Budget Activity/Serial FT PROCUREMENT / 4 / Equipment and Facilities	'Serial No: TT / 4 / Support ::ilities		P-1 Line Ite AIRCRAF	P-1 Line Item Nomenclature: AIRCRAFT SURVIVABILITY EQUIPMENT (AZ3504)	/ EQUIPMENT		Weapon System Type:		Date: Feb	February 2000
Aircraft	₽		FY 98			FY 99			FY 00			FY 01	
ints	8	TotalCost	ą	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qfy	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	000\$	\$000	Each	\$000
1. AZ3506 - ASE WARNING RECEIVERS													
AN/TPQ-45 ASE Trainer IV (ASET IV) Nonrecurring Engineering & Upgrades Project Management Support & Fielding of ASE Systems		6742			6772 628			11640 613					
SUBTOTAL		8040			7400			12253					
2. AZ3508 - ASE RADAR CM												*****	
Suite of Integrated Radio Freq CMS (SIRFC) B-Kit for SOA Nonrecurring Engineering Project Management					2820 216			88					
SUBTOTAL					3036			98					
AN/AVR-2 Laser Warning System acquisition and fielding Project Management								2794					
SUBTOTAL								2941					
TOTAL		8040			10436			15280					
					-								
												<u>.</u>	

									Date:		
	Exhibit P	Exhibit P-5a, Budget Procurement History and Planning	listory a	nd Planning					Ŗ	February 2000	0
Appropriation / Budget Activity/Serial No:			Weapon System Type:	зт Туре:		2-1 Line Item	P-1 Line Item Nomenclature:				
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	and Facilities					`	AIRCRAFT SU	AIRCRAFT SURVIVABILITY EQUIPMENT (AZ3504)	JIPMENT (A	Z3504)	
WBS Cost Elements:		Contractor and Location	Contract Method	Location of PCO	Award Date Date of First	Date of First	ΔΤΑ	Unit Cost	Specs Avail	Date R Revsn	RFP Issue Date
Fiscal Years			and Type			Delivery	Each	\$000	Now?	Avail	
AN/TPQ-45 ASET IV Mod Kits FY 99 FY 00**		Sierra Technologies, Inc	Option Option	AMCOM, Huntsville, AL AMCOM, Huntsville, AL	Sep-98 Apr-00	Feb-00 Oct-01			Yes	2 S	•
AN/ALQ-211, Suite of Integrated Radio Frequency CMS FY01*		ITT Corp, Clifton, NJ	C/FFP	CECOM, Ft. Monmouth, NJ	Aug-01	Mar-03			Yes	Ą	
							and the same of th				and the second s
REMARKS: * Contract award is contingent upon receipt of	ontingent u	pon receipt of CV-22 funds a	s directe	CV-22 funds as directed for Commander-in-Chief Special Operations Command.	ief Speci	al Opera	tions Co	mmand.			

\* Contract award is contingent upon receipt of CV-22 funds as directed for Commander-in-Chief Special Operations Command. \*\* Upgrades for 8 Radio Frequency Surface -Air-to-Ground Missiles to eight ASET IV's and upgrade of FLIR Cameras.

		Exhibit P.40 Budget	O Budget It	em Instific	Item Instification Sheet			Date:		2000		
		באווווסורי	o, Dauger it		and discr					repruary 2000		
Appropriation / Budget Activity/Serial No:	No:					P-1 Item Nomendature:	re:					
AIRCRAF	AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	4 / Support Equipme	nt and Facilities					AVIONICS S	AVIONICS SUPPORT EQUIPMENT (AZ3000)	VT (AZ3000)		
Program Elements for Code B Items:	16			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	2076	34										2110
Gross Cost	115.7	9.9	2.6	2.5	8.9	0.0	0.0	0.0	0:0	0.0	0.0	139.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	115.7	9.6	2.6	2.5	8.9	0.0	0.0	0.0	0.0	0.0	0.0	139.6
Initial Spares	4.4											4.4
Total Proc Cost	120.1	9.6	2.6	2.5	8.9	0.0	0.0	0.0	0.0	0.0	0.0	144.0
Fiyaway U/C	0.047	0.287	0.000	0.000								0.055
Wpn Sys Proc U/C	0.056	0.291	0.000	0.000								0.062

intensification (12) technology and fourth generation image intensification is now available. Fourth generation 12 provides a 60% improvement in visual acuity at low light level and a 60% improvement in range performance as compared with currently fielded AN/AVS-6 systems. The AN/AVS-6(V) 3 is an enhanced night vision goggle with DESCRIPTION: AN/AVS-6, Aviators' Night Vision Imaging System (ANVIS) is a binocular, helmet mounted system for Aviation crew members. The original ANVIS fourth generation image intensification designed for aviation use, to include nap-of-the-earth mission, down to overcast starlight conditions. The increased range was procured, with third generation image intensification, over the period of FY82-FY93. Since that time, substantial improvements have been made in image performance results in improved safety of flight, thereby expanding the conditions under which nighttime operations can be conducted effectively.

wiring harness, etc.) [A Kit] and an interface box, control panels and two optical displays per aircraft [B Kit]. The entire System weight ranges from 32 to 40 pounds per Heads Up Display (HUD) AN/AVS-7 is a system which works in conjunction with the Aviator's Night Vision Imaging System (ANVIS) AN/AVS-6. The ANVIS/HUD collects critical flight information from aircraft sensors/cockpit displays and converts this information into visual imagery that is overlaid on the imagery provides significant operational and safety enhancements to night vision goggle flight. The HUD is made up of two subsystems, an aircraft integration kit (brackets, viewed through the night vision goggles. This system allows continuous heads up flight by the pilot without needing to look inward at the instrument panel. This aircraft. The display unit head weight is approximately 140 grams. HUD is being installed on the CH-47D and UH-60 helicopters.

JUSTIFICATION: There are no FY 2001 funds.

Exhibit P-5, Weapon Aircraft Cost Analysis		Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Supl Equipment and Facilities	ion/ Budget Activity/Serial FT PROCUREMENT / 4 / Equipment and Facilities	ppropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities		P-1 Line Iter	P-1 Line Item Nomenclature: ANVIS/HUD (K35601)	5601)		Weapon System Type:		Date: Febri	February 2000
	Ω		FY 98			FY 99			FY 00			FY 01	
Cost Elements	CD	TotalCost		UnitCost	TotalCost	Qfy	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	000\$	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
AN/AVS-6(V)3	٧							0589	963	7			
Installation					2018			200					
Flat Panel Upgrade								400		-			
Fielding Government Engineering Project Management					337 59 134			394 233 473					
Gross P-1 End Cost Less: Prior Year Adv Proc Net P-1 Full Funding Cost					2548			8850					
All ANVIS/HUD systems for the Army have been procured. Army funding in FY99 was required to install those systems.												,	
								· · · · · ·					
TOTAL					2548			8850					

Exhibit P	Exhibit P-5a, Budget Procurement History and Planning	History ar	nd Planning					. E	February 2000	
Appropriation / Budget Activity/Serial No:		Weapon System Type:	m Type:		P-1 Line Item Nomenclature:	lomenclature:				Γ
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities						,	ANVIS/HUD (K35601)			
WBS Cost Elements:	Contractor and Location	Contract Method	Location of PCO	Award Date Date of First	Date of First	ΔΙΥ	Unit Cost	Specs Avail		RFP Issue Date
Fiscal Years		and Type			Delivery	Each	\$000	Now?	Avail	
	LITTON, TEMPE, AZ	OPTION CECOM	CECOM	Jan-00 Jan-00	Nov-00 Nov-00	385	L L	ÉS 2		
REMARKS:										

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE	onac	NOIL	SCHE	DULE			<u>-</u>	F-1 Item Nomenciature.	) let ic	iaine		ANVIS/HUD (K35601)	HUD (	K3560	£							į			Feb	February 2000	000			
				PROC	ACCEP.	BAL	L			٣	isca	Fiscal Year 00	90				r				Γ	isca	Fiscal Year 01	ır 01						_
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COST ELEMENTS	шк	È	шк>	Each	10 1 OCT	AS OF 1 OCT	0 U F	z 0 >	ОШО	¬ A Z	≥ < c	∢ a	Σ∢≻	っ つ Z	ا د د	v ⊃ o	ωmr	0 U F	z 0 >	о ш О	¬ ∢ Z	≥ ∢ ıı	4 G R	≥ ∢ ≻	7 D Z	207	v ⊃ ۵	ошσ	⊢ш∝	
AN/AVS-6(V)3								Н	Н	Н								$\dashv$	-	-	-	-	4	_	_	_				-
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								Date:				
		Exhibit P-4	Exhibit P-40, Budget Item Justification Sheet	em Justifica	ation Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	ial No:					P-1 Item Nomenclature:	re:					
AIRCRA	AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	4 / Support Equipme	int and Facilities					COMMON G	COMMON GROUND EQUIPMENT (AZ3100)	IT (AZ3100)		
Program Elements for Code B Items:	:S:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	459.8	20.5	21.8	21.8	20.0	11.9	16.5	16.5	17.4	17.4	0.0	623.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	459.8	20.5	21.8	21.8	20.0	11.9	16.5	16.5	17.4	17.4	0.0	623.6
Initial Spares												
Total Proc Cost	459.8	20.5	21.8	21.8	20.0	11.9	16.5	16.5	17.4	17.4	0.0	623.6
Flyaway U/C												
Wpn Sys Proc U/C												

### DESCRIPTION

Aviation Ground Support Equipment (AGSE) is necessary to make an aircraft, or one of its associated systems or subsystems, operational in its intended environments. This includes all equipment required to guide, control, inspect, test, adjust, calibrate, assess, gauge, assemble, disassemble, handle, transport, store, actuate, service, repair and/or overhaul the aircraft system or subsystems. Included are such items as aviation ground power units, hydraulic test stands, etc.

generation systems. These include the Voice Communication Switching System (VCSS), the DoD Advanced Automation System (DAAS), the Airfield Status Automation Systems (ASAS) and the Digital Airport Survelliance Radar (DASR). The Fixed Base Precision Approach Radar (FBPAR) provides the Army's primary ground controlled Airfield Support Equipment (Air Traffic Control (ATC) requirements will be met through a vast array of high technology solutions resulting in a highly reliable and safe and automating the complete infrastructure, systematically replacing antiquated analog systems (radars, communications switching systems) and installing state of the art digital technology. Army fixed base ATC systems must therefore be fully interoperable with the FAA systems so existing analog systems will be replaced with new air traffic control system. The Federal Aviation Administration(FAA) and the DoD are currently modernizing the National Airspace System (NAS) to include upgrading generic ground-based navigation aides ( Non-Directional Beacons, Distance Measuring Equipment, Instrument Landing Systems), digital radios and wind measuring precision approach capability to recover aircraft to fixed base facilities, ensuring safe landing in adverse weather conditions. Ancillary equipment includes a host of equipment. These types of ancillary equipment support requirements tailored to specific aviation stationing plans throughout the world.

## JUSTIFICATION:

Aviation Ground Support Equipment (AGSE): FY 01 funding will achieve and sustain the operational readiness of all Army aviation field units, which are operating AH-64, UH-60, CH-47, OH-58D and other Army aircraft. Aviation Ground Support Equipment (AGSE) also provides a means to correct safety-of-flight discrepancies which undergoing maintenance, heavily damaged aircraft, and crash damaged aircraft. AVIM Shop Set Complexes provide a transportable aviation intermediate and limited Aviation Unit Maintenance (AVUM) organizations the capability to quickly rig for aerial recovery, aircraft on the battlefield that cannot be repaired, nonflyable aircraft endanger both life and property. With more aircraft being added to the Army inventory, the fielding of new aviation units and the diversification of aviation missions creates an ever increasing requirement for AGSE. The Unit Maintenance Aerial Recovery Kit (UMARK) will provide Aviation Intermediate Maintenance (AVIM) and developing theater. International Standardization Organization (ISO) one-side expandable shelters house AVIM Shop Sets Complexes. ISO shelters provide the deployability of AVIM Shop Set Complexes using organic vehicles operated by aircraft mechanics thus meeting the requirement to conduct split operations in a depot level maintenance capability in force projection or contingency operations. Containerization and Modernization Program (CAMP) provides "one lift" 50% capability for maritime shipboard movement through commercial ports and are compatible with military/commercial roll-on/roll-off (RO/RO) ships and military/commercial ground transportation.

eapon nalysis	⋖	Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	dget Activity/ OCUREMEN nent and Fac	'Serial No: IT / 4 / Support ::littes		P-1 Line Item COMMON (	P-1 Line Item Nomenclature: COMMON GROUND EQUIPMENT (AZ3100)	MENT (AZ3100)		Weapon System Type:		Date: Febru	February 2000
Aircraft	ب		FY 98			FY 99			FY 00			FY 01	
Cost Elements		TotalCost	Qty	UnitCost	t	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
	₩	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	000\$	Each	\$000
AVIATION GROUND SUPPORT EQUIPMENT (AZ3520)					12,782			10,634			11,926		
AIRFIELD SUPPORT EQUIPMENT (AZ1710)					9,055			9,443			1		
				, , , <del>, , , ,</del>									
		٠			21,837			20,077			11,926		

								Date:				
		Exhibit P-4	Exhibit P-40, Budget Item Justification Sheet	em Justifica	ation Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	al No:	,				P-1 Item Nomenclature:	rre:					
AIRCRAF	T PROCUREMENT /	AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	nt and Facilities					AVIATION GROUI	AVIATION GROUND SUPPORT EQUIPMENT (AZ3520)	PMENT (AZ3520)		
Program Elements for Code B Items:	ij			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	338.6	17.2	14.3	12.8	10.8	11.9	15.6	15.6	16.4	16.4	0.0	469.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	338.6	17.2	14.3	12.7	10.6	11.9	15.6	15.6	16.4	16.4	0.0	469.4
Initial Spares												
Total Proc Cost	338.6	17.2	14.3	12.7	10.6	11.9	15.6	15.6	16.4	16.4	0.0	469.4
Flyaway U/C												
Wen Svs Proc U/C												

transport, store, actuate, service, repair and/or overhaul the aircraft system or subsystems. Included are such items as aviation ground power units, hydraulic test DESCRIPTION: Aviation Ground Support Equipment (AGSE) is necessary to make an aircraft, or one of its associated systems or subsystems, operational in its intended environments. This includes all equipment required to guide, control, inspect, test, adjust, calibrate, assess, gauge, assemble, disassemble, handle, stands, etc. JUSTIFICATION: FY 01 funding will achieve and sustain the operational readiness of all Army aviation field units, which are operating AH-64, UH-60, CH-47, OH-58D property. With more aircraft being added to the Army inventory, the fielding of new aviation units and the diversification of aviation missions creates an ever increasing heavily damaged aircraft, and crash damaged aircraft. AVIM Shop Set Complexes provide a transportable aviation intermediate and limited depot level maintenance capability in force projection or contingency operations. Containerization and Modernization Program (CAMP) provides "one lift" 50% deployability of AVIM Shop Set requirement for AGSE. The Unit Maintenance Aerial Recovery Kit (UMARK) will provide Aviation Intermediate Maintenance (AVIM) and Aviation Unit Maintenance (AVUM) organizations the capability to quickly rig for aerial recovery, aircraft on the battlefield that cannot be repaired, nonflyable aircraft undergoing maintenance, and other Army aircraft. Aviation Ground Support Equipment (AGSE) also provides a means to correct safety-of-flight discrepancies which endanger both life and Complexes using organic vehicles operated by aircraft mechanics thus meeting the requirement to conduct split operations in a developing theater. International Standardization Organization (ISO) one-side expandable shelters house AVIM Shop Sets Complexes. ISO shelters provide the capability for maritime shipboard movement through commercial ports and are compatible with military/commercial roll-on/roll-off (RO/RO) ships and military/commercial ground transportation.

Exhibit P-5, Weapon		Appropriation/ Budget Activity/Serial No:	udget Activit	y/Serial No:		P-1 Line Ite	P-1 Line Item Nomenclature:			Weapon System Type:	Type:	Date:	
Aircraft Cost Analysis		AIRCRAFT PF Equip	ROCUREME	AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities		AVIATION	GROUND SUPPO	AVIATION GROUND SUPPORT EQUIPMENT				Febr	February 2000
	1						(AZ3520)						
Aircraft	₽		FY 98			FY 99			FY 00			FY 01	
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	000\$	Each	000\$	000\$	Each	\$000
Nondestructive Test Equipment(NDTE) Fielding Accessories	٧				62								
Flexible Engine Diagnostic System(FEDS) (A08701) Fielding Production Engineering Depot Workload Cost Increase	∢				7 45 1,652			_					
Shop Equipment Contact Maintenance (SECM) Fielding ASIOE	∢				1,070								
Aircraft Vibration Analyzer (AVA) Hardware Upgrade	⋖							1,662					
Generic Aircraft Nitrogen Generator (GANG) Hardware Fielding Program Management Support	⋖							2,430 30 50	23	45			
New Aviation Tool Set (NATS) Hardware Fielding Program Management Support	∢				1,479	834	2	50					
Aviation Ground Power Unit (AGPU) MWO Upgrade	∢				200			546					
AVIM Shop Sets Hardware Fielding	⋖				5,799	7	828	1,740	2	870	3,480	4	870

Exhibit P-5. Weapon	Г	Appropriation/ Budget Activity/Serial No:	udget Activit	y/Serial No:		P-1 Line Iter	P-1 Line Item Nomenclature:			Weapon System Type:		Date:	
Aircraft Cost Analysis		AIRCRAFT PI Equip	FT PROCUREMENT / 4 / Equipment and Facilities	AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities		AVIATION 6	AVIATION GROUND SUPPORT EQUIPMENT (AZ3520)	RT EQUIPMENT				Febr	February 2000
Aircraft	Ω		FY 98			FY 99			FY 00			FY 01	
Cost Elements	CD	TotalCost	Qfy	UnitCost	TotalCost	Qfy	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		000\$	Each	000\$	000\$	Each	\$000	000\$	Each	\$000	\$000	Each	\$000
ISO Shelters Hardware	٧				1,260	21	09	1,330	19	02	2,870	41	70
Kerurolsnment Containerization and Modernization Program (CAMP) Shop Sets Hardware	∢				56			. <b>C</b>			1,800	7	006
Unit Maintenance Aerial Recovery Kit (UMARK)	∢							3					
Hardware Fielding Production Engineering Program Management Support					100			1,440	32	45	3,735	83	45
Fuel Quantity Gauge Tester Hardware	∢							212	32	7			
Helicopter External Lift Enhancer (Congressional Plus-Up) Hardware	∢							1,000	22	45			:
TOTAL		•			12,782			10,634			11,926		

Exhibit	Exhibit P-5a, Budget Procurement History and Planning	History a	and Planning					Date:	February 2000	8
Appropriation / Budget Activity/Serial No:		Weapon System Type:	n Type:	ш	P-1 Line Item Nomenclature:	enclature:				
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities					AVIA	TION GROUN	AVIATION GROUND SUPPORT EQUIPMENT (AZ3520)	IPMENT (/		
WBS Cost Elements:	Contractor and Location	Contract Method	Location of PCO	Award Date	Date of First	ατγ	Unit Cost	Specs Avail	Date Revsn	RFP Issue Date
Fiscal Years		and Type			Delivery	Each	\$000	Now?	Avail	
Generic Aircraft Nitrogen Generator (GANG) FY 00	TBS	C/FP	Kelly Air Force Base	Jan-00	Jan-01	55	45	Yes	Š	
New Aviation Tool Set (NATS) FY 98 FY 99	Rock Island Arsenal (RIA) RIA	MIPR	AMCOM	Feb-98 Dec-98	Sep-98 Jul-99	11733	* *	Yes	8 8 8	
AVIM Shop Sets FY 99 FY 00 FY 01	Rock Island Arsenal (RIA) RIA RIA	MIPR MIPR MIPR	AMCOM AMCOM AMCOM	Jan-99 Jan-00 Jan-01	Jun-99 Jun-00	<i>≻</i>	828 870 870	Y es Y es	888	
ISO Shelters FY 99 FY 00 FY 01	USA Soldier and Biological Chemical Command Natick, MA	MIPR MIPR MIPR	AMCOM AMCOM AMCOM	Apr-99 Jan-00 Jan-01	Jun-99 Apr-00 Apr-01	21 19 14	60 70 70	Yes Yes	2 2 2 2 2 2	
Containerization and Modernization Program (CAMP) Shop Sets FY 01	Rock Island Arsenal	MIPR	АМСОМ	Jan-01	Aug-01	7	006	Yes	Š	
Unit Maintenance Aerial Recovery Kit (UMARK) FY 00 FY 01	TBS TBS	C/FP C/FP-0	АМСОМ АМСОМ	Jun-00 Jan-01	Jun-01 Jan-02	32	45	Yes	22	
Fuel Quantity Gauge Tester FY00	TBS	C/FP	Kelly Air Force Base	Jan-00	Jul-00	32	2	Yes	Š	
Helicopter External Lift Enhancer FY00	TBS	C/FP	АМСОМ	Dec-00	Sep-01	52	45	×	o Z	

\* More than one type of New Aviation Tool Set is being procured, so unit prices are an average.

REMARKS:

								Date:				
		Exhibit P-4	Exhibit P-40, Budget Item Justification Sheet	em Justifica	ation Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	al No:					P-1 Item Nomenclature:	.e.					
AIRCRAF	AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	4 / Support Equipme	nt and Facilities					AIRFIELD St	AIRFIELD SUPPORT EQUIPMENT (AZ1710)	4T (AZ1710)		
Program Elements for Code B Items:	15:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	121.1	3.3	7.5	9.1	9.4	0.0	0.0	0.0	0.0	0.0	0.0	150.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	121.1	3.3	7.5	9.1	9.4							150.4
Initial Spares												
Total Proc Cost	121.1	3.3	7.5	9.1	9.4	0.0	0.0	0.0	0.0	0.0	0.0	150.4
Flyaway U/C												
7/1 oc. 0 c. 0 c. 11/0												

DESCRIPTION: Airfield Support Equipment (Fixed Base Air Traffic Control (ATC)) requirements will be met through a vast array of high technology solutions resulting Landing Systems), digital radios and wind measuring equipment. These types of ancillary equipment support requirements tailored to specific aviation stationing plans systems) and installing state of the art digital technology. Army fixed base ATC systems must therefore be fully interoperable with the FAA systems so existing analog in a highly reliable and safe air traffic control system. The Federal Aviation Administration(FAA) and the DoD are currently modernizing the National Airspace System systems will be replaced with new generation systems. These include the Voice Communication Switching System (VCSS), the DoD Advanced Automation System (DAAS), the Airfield Status Automation Systems (ASAS) and the Digital Airport Survelliance Radar (DASR). The Fixed Base Precision Approach Radar (FBPAR) conditions. Ancillary equipment includes a host of generic ground-based navigation aides ( Non-Directional Beacons, Distance Measuring Equipment, Instrument (NAS) to include upgrading and automating the complete infrastructure, systematically replacing antiquated analog systems (radars, communications switching provides the Army's primary ground controlled precision approach capability to recover aircraft to fixed base facilities, ensuring safe landing in adverse weather throughout the world.

	Exhibit P-5,	Veapon System Cost Analysis
		Wea

Exhibit P-5, Weapon	ď	Appropriation/ Budget Activity/Serial No:	iget Activity/	Serial No:		P-1 Line Iten	P-1 Line Item Nomenclature:			Weapon System Type:	Type:	Date:	
Aircraft Cost Analysis		AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	FT PROCUREMENT / 4 / Equipment and Facilities	T / 4 / Support		AIRFIELD S	AIRFIELD SUPPORT EQUIPMENT (AZ1710)	MENT (AZ1710)				Febr	February 2000
Aircraft	₽		FY 98			FY 99			FY 00			FY 01	
Cost Elements	8	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
1. Precision Approach Radar Hardware					4,366	2	2,183	5,808	က	1,936			
Production Start Up Costs Interim Contractor Support					1,081								
Engineer, Furnish, & Install (EF&I) Fielding					154			2,103					
l esting Other Costs					217								
<ol><li>Voice Communication Switching System (VCSS)</li></ol>													
Hardware Engineer, Furnish, & Install (EF&I)					1,081	S	216	472 291	ო	157			
Fleiding Other Costs					33			12					
3. DoD Advanced Automation System (DAAS)													
Hardware Interim Contractor Support Engineer, Furnish, & Install (EF&I)								200					
4. Airfield Status Automation System (ASAS)												- <del>-</del>	•
Hardware Interim Contractor Support Engineer, Furnish, & Install (EF&I)													
r retuing 5. Digital Airport Survelliance Radar (DASR)													
Site Surveys 5. Ancillary Equipment					206			450					
6. USAF Air National Guard Tower Equipment					1,200								
TOTAL		ı			9,055			9,443			•		

T. C. C. C. C. C. C. C. C. C. C. C. C. C.	Exhibit D & Dudact Drougomont Lictory and Diaming	Uicton, on	Diaming P					Date:	0000	
	-sa, buayet rioculement	nistory an	lu riailiilig						eoruary zu	3
Appropriation / Budget Activity/Serial No:		Weapon System Type:	Туре:		P-1 Line Item Nomenclature:	omenclature:				
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities						AIRFIELD SI	AIRFIELD SUPPORT EQUIPMENT (AZ1710)	IENT (AZ1)	710)	
WBS Cost Elements:	Contractor and Location	Contract Method	Location of PCO	Award Date	Date of First	ΩTY	Unit Cost	Specs Avail	Date Revsn	RFP Issue Date
Fiscal Years		and Type			Delivery	Each	\$000	Now?	Avail	
<ol> <li>Precision Approach Radar FY99</li> </ol>	Raytheon	C/FP-0	CECOM	Aug-99	Nov-00	2	2,183	Yes	Š	
FY 00	Cambridge, MA Raytheon Cambridge, MA	C/FP-O	CECOM	Mar-00	Jun-01	က	1,936	Yes	2	
2. Voice Communication Switching System (VCSS)										
FY99	Federal Aviation Administration (FAA)	MIPR	FAA	Jan-99	Jul-99	Ŋ	216	Yes	§	
FY00	Federal Aviation Administration (FAA)	MIPR	FAA	Feb-00	Aug-00	က	157	Yes	Š	
REMARKS:										

								Date:				
		Exhibit P-4	Exhibit P-40, Budget Item Justification Sheet	em Justifica	ation Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	al No:					P-1 Item Nomenclature:	re:					
AIRCRAF	AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	4 / Support Equipme	nt and Facilities					AIRCREW IN	AIRCREW INTEGRATED SYSTEMS (AZ3110)	AS (AZ3110)		
Program Elements for Code B Items:	S:			Code:	Other Related Program Elements:	am Elements:						
							RDTE 6438	RDTE 643801 (DB45) and 654801 (DC45)	01 (DC45)			
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	41.9	11.3	8.0	0.6	17.2	3.5	22.2	34.1	56.6	56.5		260.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	41.9	11.3	8.0	0.6	17.2	3.5	22.2	34.1	56.6	56.5		260.2
Initial Spares												
Total Proc Cost	41.9	11.3	8.0	9.0	17.2	3.5	22.2	34.1	56.6	56.5		260.2
Flyaway U/C												
Winn Syn Broc 11/C												

enhancing mission performance and aircrew survivability during operational missions, training, aircraft crash, and the post crash period prior to rescue. The ACIS items DESCRIPTION: Aircrew Integrated Systems (ACIS) addresses those items of equipment that are used to sustain Army aircrews and troops throughout the flight profile, filtration systems. A Nondevelopmental Item demonstration program for Digital Source Collector (flight data and voice recorder) for bussed and non-bussed Army rotary various aircraft platforms operated. The results of future development efforts will be applied as product improvements to the basic Air Warrior ensemble production as effectiveness by increased mission performance and safety, reduction of equipment weight and bulk, and increased tailorability to specific missions, threats, and the that accomplish the aircrew-aircraft integration functions include aircraft cockpit air bags, chemical/biological protective mask blowers, helicopter oxygen systems, nuclear flash and laser eye protection, helmets, flotation devices, survival kits and equipment, NBC warning, sound attenuation devices, and decontamination and wing aircraft was also funded in this Standard Study Number. Basic Air Warrior ensembles will be procured to integrate aircrew equipment for maximum aircrew new technologies evolve.

Funding will permit incorporation of CABS into the UH-60 Blackhawk aircraft. The FY 00 Digital Source Collector funding will integrate data collection interfaces into the attachment hardware and CABS common components, including crewmember system modules containing gas generators and the crash sensor and system packaging. ANVIS HUD. Funding increases during FY 02 and beyond resource the Air Warrior basic ensemble production and aircraft platform integration that commences in FY JUSTIFICATION: Aircraft Procurement, Army (APA) funding for all ACIS programs and projects is included in this budget line item. The FY 00 and FY 01 CABS funding will provide for acquisition of the Cockpit Air Bag System (CABS) for UH-60 Blackhawk helicopters to improve crash survivability and reduce potential injuries and fatalities. The CABS includes aircraft modification that provides for adaptation of CABS to the aircraft, e.g., electrical power, hard points and miscellaneous

Exhibit P-5, Weapon		Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Supp	dget Activity	ppropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support		P-1 Line Itel AIRCREW I.	P-1 Line Item Nomenclature: AIRCREW INTEGRATED SYSTEMS (AZ3110)	STEMS (AZ3110)		Weapon System Type:		Date: Febru	February 2000
All clark cost Allalysis		Equip	Equipment and Facilities	cilities									
Aircraft	Ω		FY 98			FY 99			FY 00			FY 01	
Cost Elements	СО	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
Harriware		000\$	Each	\$000	000\$	Each	\$000	000\$	Each	000\$	000\$	Each	\$000
Cockpit Air Bag System (CABS):													
AH-64 Apache - Inertia Reels UH-60 Blackhawk - Inertia Reels UH-60 Blackhawk - LRIP UH-60 Blackhawk - Production		1452	1550 450	<b>←</b> <del>←</del>	4800	150	32	6194	177	35	1245	36	35
Digital Source Collector (DSC) interface into ANVIS HUD: Hardware	-{SIX	HOD:						1405	300	S.			
Helmets - HGU-56/P: National Guard								3137	3853	<del>-</del>			
PRC-112 survival radios & spt equipment								2200	275	8			
Laser Eye Protective Visors								336	1000				
Subtotal Hardware Costs FCP Svs Int & Admin Costs		1873			4800			13272			1245		
Engineering Change Proposal - CABS: UH-60 Blackhawk CABS P3I ECPs Systems Integration Engineering		3200			1728			1000			1000		
Project Management Administration Subtotal ECP, Sys Int, & Admin Costs	,	975 <b>5817</b>			1200 <b>3956</b>			1295 <b>3295</b>			800 <b>1800</b>		
Support Cost													
Fielding		260			216			009			445		
Subtotal Support Cost		260			216			009			445		
TOTAL		7950			8972			17167			3490		

								Date:		
Exhibit F	Exhibit P-5a, Budget Procurement History and Planning	listory a	nd Planning					F	February 2000	00
Appropriation / Budget Activity/Serial No:		Weapon System Type:	ım Type:		2-1 Line Item I	P-1 Line Item Nomenclature:				
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities						AIRCREW II	AIRCREW INTEGRATED SYSTEMS (AZ3110)	rems (AZ	3110)	
WBS Cost Elements:	Contractor and Location	Contract Method	Location of PCO	Award Date Date of First	Date of First	αīγ	Unit Cost	Specs Avail	Date Revsn	RFP Issue Date
Fiscal Years		and Type			Delivery	Each	\$000	Now?	Avail	
Cockpit Air Bag System (CABS):					-					
AH-64 Apache - Inertia Reels										
FY 98	H. Koch and Sons, Inc Anaheim CA	C/FP	AMCOM, Huntsville, AL	Jun-98	Aug-98	1550	<del>-</del>	Υes	·	
UH-60 Blackhawk - Inertia Reels										
FY 98	H. Koch and Sons, Inc Anaheim CA	C/FP	AMCOM, Huntsville, AL	Sep-98	Sep-99	450	<b>~</b>	Xes Yes		
UH-60 Blackhawk - LRIP										
FY 99	Simula, Inc., Phoenix, AZ	SS/FP	AATD, Ft. Eustis, VA.	Sep-99	May-00	150	32	Yes		
UH-60 Blackhawk -Production				•						
FY 00	Simula, Inc., Phoenix, AZ	SS/FP	AATD, Ft. Eustis, VA	Jun-00	Dec-00	177	35	Ϋ́		
FY 01	Unknown	C/FP	AMCOM, Huntsville, AL	Nov-00	Feb-01	36	35	Υes		
Digital Source Collector (DSC):										
DSC integration of data collection interfaces into ANVIS HUD	HUD				•					
FY 00	BAE Systems	SS/FP	PM Night Vision	Mar-00	Sep-00	300	τC	Υes		
			Ft. Belvoir, VA							
Helmets - HGU-56/P (National Guard)										•
FY 00	DLA	Redn	DLA	Mar-00	Sep-00	3853	_	Xes		
	Ft. Belvoir, VA		Ft. Belvoir, VA							
PRC-112 survival radios & spt eqp, FY 00	CECOM, Ft. Monmouth, NJ	Redn	CECOM, Ft. Monmouth, NJ	Jun-00	Jun-01	240	80	Yes		
Laser Eye Protective Visors	Various	Various	AMCOM, ACALA	Aug-00   Aug-01	Aug-01	1000		Yes		
REMARKS: FY99 CABS buy is sole source to Simula, Inc. (RDT&E Developer)	a, Inc. (RDT&E Developer).									

		Exhibit P-4	Exhibit P-40, Budget Item Justification Sheet	em Justifica	ation Sheet			Date:		February 2000		
Appropriation / Budget Activity/Serial No:	ial No:					P-1 Item Nomenclature:	<u>.</u>					
AIRCRA	AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	4 / Support Equipme	nt and Facilities					AIR TRA	AIR TRAFFIC CONTROL (AA0050)	A0050)		
Program Elements for Code B Items:	ns:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	56.9	13.6	9.6	16.8	8.7	74.1	74.6	70.3	67.6	58.3	0.0	450.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	56.9	13.6	9.6	16.8	8.7	74.1	74.6	70.3	9.79	58.3	0.0	450.5
Initial Spares												
Total Proc Cost	56.9	13.6	9.6	16.8	8.7	74.1	74.6	70.3	9.79	58.3	0.0	450.5
Flyaway U/C												
Wpn Sys Proc U/C												

automating the complete infrastructure, systematically replacing antiquated analog systems (radars, communications switching systems) and installing state of the art digital technology. These include the Voice Communication Switching System (VCSS), the DoD Advanced Automation System (DAAS), the Airfield Status Automation generic ground-based navigation aides (Non-Directional Beacons, Distance Measuring Equipment, Instrument Landing Systems), digital radios and wind measuring DESCRIPTION: Fixed Base Air Traffic Control requirements will be met through a vast array of high technology solutions resulting in a highly reliable and safe air traffic control system. The Joint DoD/Federal Aviation Administration (FAA) program will modernize the National Airspace System (NAS) to include upgrading and precision approach capability to recover aircraft to fixed base facilities, ensuring safe landing in adverse weather conditions. Ancillary equipment includes a host of Systems (ASAS) and the Digital Airport Survelliance Radar. The Fixed Base Precision Approach Radar (FBPAR) provides the Army's primary ground controlled equipment.

landing services to all Army, other services, and allied aircraft. The TAIS is a highly mobile airspace synchronization and deconfliction system providing Army Airspace Tactical Air Traffic Control equipment includes Tactical Terminal Control System (TTCS), Air Traffic Navigation Integration and Coordination System (ATNAVICS), and the Tactical Airspace Integration System (TAIS). The TTCS is providing secure, jam-resistant radio communications to remote landing and pickup zones along the forward edge of the battle area. The ATNAVICS will provide all weather instrument flight capabilities to include enroute, terminal and radar precision approach and battlefield. It will interface with the Army Battle Command System (ABCS) and the Army Tactical Command and Control System (ATCCS) while providing ground Command and Control (A2C2) and air traffic control capabilities to the First Digitized Division/Corps and the ground maneuver commander on the future digitized commanders with automated A2C2 capability to support all Corp/Division digitization initiatives into the next century.

Appropriation / Budget Activity/Serial No.  Appropriation / Budget Activity/Serial No.  AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities  Program Elements for Code B Items  Code Other Related Program Elements				2	Date
Vo. PROCUREMENT / 4 / Support Equipment and Facilities Code Other Related Program Elements	Exhibit P-40C Budget I	tem Justifi	ication Sheet		February 2000
PROCUREMENT / 4 / Support Equipment and Facilities  Code Other Related Program Elements	Appropriation / Budget Activity/Serial No.			P-1 Item Nomenclature	
Code	AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities				AIR TRAFFIC CONTROL (AA0050)
	Program Elements for Code B Items	Соде	Other Related Progra	am Elements	

JUSTIFICATION: FY 01 funds will provide the Army the joint service capability to procure specific fixed base Air Traffic Control (ATC) systems required for the Federal through the replacement of old, obsolete, antiquated analog radars, switches, and automation systems with new, state of the art, highly reliable ATC systems in towers Aviation Administration (FAA) modernization and upgrade of the National Airspace System. These systems will save significant Operational and Support (O&S) costs maintain and will provide commonality for both operational and maintenance training. Commonality and interoperability will ensure jointness among the Services and and approach control facilities. Funding will also ensure interoperability between Army and FAA systems. These new fixed base systems will be relatively easy to participating host nations.

relatively easy to install, and will be able to keep pace with the fast tempo of the modern battlefield. The continued acquisition of these Air Traffic Control systems will For tactical ATC this funding will provide for the production of the ATNAVICS, continued upgrades and production of the TAIS. This new family of tactical Air Traffic Control systems will replace current generation equipment that is obsolete and not economically supportable. These systems will be compact, highly mobile, and support present and future warfighting capabilities and assist the manuever commander/Army aviator by providing vast improvements in the areas of secure communications, automated data processing, equipment reliability, survivability, and transportability. NOTE: FY 00 and prior funds for Fixed Base ATC systems were on the Airfield Support Equipment budget line (AZ1710). FY 99 Kosovo supplemental funds of \$1.3M are being reprogrammed to RDTE.

Exhibit P-5 Weapon		Appropriation/ Budget Activity/Serial No:	udget Activity	/Serial No:		P-1 Line Iter.	P-1 Line Item Nomenclature:			Weapon System Type:		Date:	
Aircraft Cost Analysis		AIRCRAFT PR Equip	OCUREMEN ment and Fa	AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities		AIR TF	AIR TRAFFIC CONTROL (AA0050)	L (AA0050)				Febr	February 2000
Aircraft	Ω		FY 98			FY 99			FY 00			FY 01	
Cost Elements	CO	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qfy	UnitCost	TotalCost	Qty	UnitCost
		000\$	Each	000\$	\$000	Each	\$000	000\$	Each	\$000	\$000	Each	\$000
Precision Approach Radar     Hardware     Production Start Up Costs     Interim Contractor Support     Engineer, Furnish & Install (EF&I)     Fielding     Data											5,808 335 1,728 224 189	က	1,936
<ol> <li>Voice Communication Switching System (VCSS)         Hardware Interim Contractor Support Engineer, Furnish, &amp; Install (EF&amp;I)         Fielding</li> </ol>											1,929 30 1,464 198	5	161
3. DoD Advanced Automation System (DAAS) Hardware Interim Contractor Support Engineer, Furnish, & Install (EF&I)											5,400	Ŋ	1,080
<ol> <li>Airfield Status Automation System (ASAS)     Hardware     Engineer, Furnish, &amp; Install (EF&amp;I)     Interim Contractor Support     Fielding</li> </ol>											799 920 162 25	ഗ	160
5. Digital Airport Surevelliance Radar (DASR) Hardware Interim Contractor Support Engineer, Furnish, & Install (EF&I) Fielding											1,402		
Ancillary Equipment											75		·

Exhibit P-5. Weapon	Ì	Appropriation/ Budget Activity/Serial No:	dget Activity	Serial No:		o-1 Line Iten	P-1 Line Item Nomenclature:			Weapon System Type:		Date:	
Aircraft Cost Analysis		AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	OCUREMENT THE THE PACE OF THE	T/4/Support		AIR TR	AIR TRAFFIC CONTROL (AA0050)	L (AA0050)				Febr	February 2000
Aircraft	Ω		FY 98			FY 99			FY 00			FY 01	
Cost Elements	8	TotalCost	Qfy	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		000\$	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
7. Tactical Terminal Control System (TTCS) (W614) Fielding Other Costs 8. Tactical Airspace Integration System					108								
(TAIS) Hardware Production Software Support GFE Testing Fielding Interim Contractor Support Training Other					6,070 4,991 1,182 110 95 362	-	6,070	4,857 25 62 274			18,000 8,890 4,278 250 240 478 398	ω	3,000
9. Air Traffic Navigation and Integration System (ATNAVICS) Hardware GFE Production Start Up Costs Interim Contractor Support Testing (FAT)					2,059			3,337	-	3,337	16,959 1,315 1,458 132 472	7	2,423
Other -FY 99 Kosovo Supplemental being reprogrammed to RDTE					1,300			8,684			74,144		

Item No. 32 Page 4 of 5

	1							Date:		
	Exhibit P-5a, Budget Procurement History and Planning	listory an	ıd Planning					ш,	February 2000	000
Appropriation / Budget Activity/Serial No:		Weapon System Type:	n Type:		P-1 Line Item	P-1 Line Item Nomenclature:				
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities						AIRT	AIR TRAFFIC CONTROL (AA0050)	L (AA0050)		
WBS Cost Elements:	Contractor and Location	Contract Method	Location of PCO	Award Date	Date of First	ΔΤΥ	Unit Cost	Specs Avail	Date Revsn	RFP Issue Date
Fiscal Years		and Type			Delivery	Each	\$000	Now?	Avail	
1. Precison Approach Radar FY 01	Raytheon Cambridge, MA	C/FP-O	CECOM	Jan-01	Apr-02	က	1,936	Yes	°Z	
2. Voice Communication Switching System (VCSS) FY 01	Federal Aviation Administration (FAA)	MIPR	FAA	Jan-01	Jul-01	12	161	Yes	°Z	
3. DoD Advanced Automation System (DAAS) FY 01	Federal Aviation Administration (FAA)	MIPR	FAA	Jan-01	Jan-02	2	1,080	Yes	°S	
<ol> <li>Airfield Status Automation System (ASAS)</li> </ol> FY 01	NAVY	MIPR	NAVY	Jan-01	Jan-02	Ω	160	Yes	£	
5. Tactical Airspace InegrationSystem (TAIS) FY 99 FY 01	Motorola, Huntsville, AL TBD	C/FP C/FP	AMCOM	Feb-99 Feb-01	Aug-00 May-02	~ Φ	6,070 3,000	Yes	9 g	
6. Air Traffic Navigation and Integration System (ATNAVICS) FY 00 FY 01	Raytheon Cambridge, MA Raytheon Cambridge, MA	C/FP-O	CECOM	Mar-00 Jan-01	Jun-01 Apr-02	7	3,336	Y	o o Z Z	
REMARKS:										

								Date:				
		Exhibit P-40, Budget	0, Budget It	em Justific	t Item Justification Sheet					February 2000		
Appropriation / Budget Activity/Serial No:	al No:					P-1 Item Nomenclature:	ıre:					
AIRCRA	AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	14/Support Equipme	nt and Facilities					INDUST	INDUSTRIAL FACILITIES (AZ3300)	Z3300)		
Program Elements for Code B Items:	is:			Code:	Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	0.0	2.0	1.5	1.5	1.4	1.6	1.6	2.2	2.2	0.0	13.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	2.0	1.5	1.5	1.4	1.6	1.6	2.2	2.2	0.0	13.9
Initial Spares												
Total Proc Cost	0.0	0.0	2.0	1.5	1.5	1.4	1.6	1.6	2.2	2.2	0.0	13.9
Flyaway U/C									,			
Wen Svs Proc U/C										_		

difficult to maintain. Instrumentation and equipment to be acquired consists of standard instrumentation recorders, tranducers, signal conditioners, encoders, computer systems, and related components in support of Aircraft systems. The program also provides funding for the Value Engineering (VE) program to stimulate activity for reducing manufacturing, acquisition, operation and support costs. DESCRIPTION: This program provides for the replacement of production test equipment. Funds are used to replace equipment that is old and becoming increasingly

JUSTIFICATION: The FY01 request will provide the Aviation Technical Test Center with production support equipment in testing the APACHE, Black Hawk, and other aviation systems. Funding also supports rebuilds, upgrades and equipment rehabilitation of government owned equipment at the Ft. Rucker Test Facilities and value engineering support and training on all aviation systems in production.

Exhibit P-5, Weapon Aircraft Cost Analysis	Q.	Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Supp	dget Activity	ppropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support		P-1 Line Iter INDUS	P-1 Line Item Nomenclature: INDUSTRIAL FACILITIES (AZ3300)	:S (AZ3300)		Weapon System Type:		Date: Feb	February 2000
	٥	Equip	Equipment and Facilities	clittes		74 80			EY ON			FY 03	
Cost Elements	8	TotalCost	ĝ	UnitCost	TotalCost	ofy.	UnitCost	TotalCost	λĝ	UnitCost	TotalCost	ð	UnitCost
П		\$000	Each	\$000	\$000	Each	\$000	ш	Each	\$000	000\$	Each	\$000
VALUE ENGINEERING PROGRAM PROVI- DES FOR THE TRAINING OF AVIATION ENGINEERS IN THE CONCEPTS OF VALUE ENGINEERING FOR VARIOUS ARMY AIRCRAFT. ALSO PAYS FOR THE ADMINISTRATION OF THE VALUE ENGINEERING PROGRAM					836			817			801		
PROVISION OF INDUSTRIAL FACILITIES PROVIDES FOR REPLACEMENT AND UP- GRADE TO PRODUCTION ACCEPTANCE TEST EQUIPMENT AND INSTRUMEN- TATION AT VARIOUS TEST CENTERS.					645			632					
TOTAL					1481			1449			1419		

		Exhibit P-40, Budg	0, Budget It	em Justific	et Item Justification Sheet			Date:		February 2000		
Appropriation / Budget Activity/Serial No:	ial No:					P-1 Item Nomenclature				coor finning :		
AIRCRA	AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	′4/Support Equipme	nt and Facilities				<u>.</u>	AIRBORNE	AIRBORNE COMMUNICATIONS (AA0705)	(440705)		
Program Elements for Code B Items:	ns:			Code.	Othor Dates					(000000)		
					Other Related Program Elements:	am Elements:						
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2004	EV 2002	EV 2003	77.000	1000		
Proc Qty						202	7007	5002	F1 2004	FY 2005	lo Complete	Total Prog
Gross Cost	46.6	37.8	45.4	41.9	43.2	0.0	19.7	14.1	7,	77 8		
Less PY Adv Proc									2	0.2	0:0	6.172
Plus CY Adv Proc												
Net Proc (P-1)	46.6	37.8	45.4	41.9	43.2	00	19.7	7.7	4,0	4		274.0
Initial Spares									2	9.	0.0	E: 13
Total Proc Cost	46.6	37.8	45.4	41.9	43.2	0.0	19.7	14.1	7	14.0		271.0
Flyaway U/C									2	9.	0.0	6.1.12
Wpn Sys Proc U/C												

### Description:

communications capability. The HF radio system allows continuous and reliable secure/non-secure communication between Army aircraft flying Nap-of-the-Earth (NOE) (ALE) to eliminate manual searches for workable frequencies reducing pilot workload and enhancing communication connectivity. The AN/ARC-220/VRC-100 also maneuvers and at NLOS distances with Aviation Tactical Operations Centers (TOC) and other Army aircraft. The radio incorporates Automatic Link Establishment provides a frequency hopping capability and is night vision compatible. The AN/ARC-220/VRC-100 provides a position reporting and data capability enhancing The AN/ARC-220/VRC-100 High Frequency (HF) Radio Program answers Army Aviation's critical long-standing requirement for a Non-Line-of-Sight (NLOS) situational awareness and command and control.

### Justification:

enhances Joint Services communications. The AN/ARC-220/VRC-100 communications system supports the five (5) Army modernization objectives; protect and sustain Communications System dated 26 February 1994. The AN/ARC-220/VRC-100 answers Non-Line-of-Sight communication deficiency for Apache aircraft as identified by Supports Required Operation Capability (ROC) for NOE Communications dated 7 May 1980 and updated in approved Operationl Requirement Document for the NOE Task Force Hawk. FY02 and out procures 98 Apache A/D, 271 UH-60/EH-60, and 113 OH-58D A-Kits. The AN/ARC-220 supports digitization of the battlefield and the force, protect the force, win the battlefield information war, conduct precision strikes throughout the battlefield and dominate the maneuver battle.

Exhibit P-5, Weapon		Appropria AIRCRA	Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Supr	t Activity/Se JREMENT /	ppropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support		P-1 Line Iter AIRBORN	P-1 Line Item Nomenclature: AIRBORNE COMMUNICATIONS (AA0705)	10NS (AA0705)		Weapon System Type:		Date: Febr	February 2000
Aliciali Cost Alialysis			Equipmen	Equipment and Facilities	ties				,					,
Aircraft	₽		۲	FY 98			FY 99			FY 00			FY 01	
Cost Elements	CD		Н		UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
AN/ARC-220 NOE HF RADIO		\$000	$\dashv \neg$	Each	000\$	\$000	Each	\$000	000\$	Each	\$000	000\$	Each	\$000
Recurring Costs A. Airborne Radio B. VRC-100 Ground Radio C. A-Kits D. A-Kit Installation SUBTOTAL			_			11783 2906 5278 1413 <b>21380</b>	506 100 854	23 6	11339 1969 7900 11937 <b>33145</b>	494 66 464	23 30 17		Market Market	
Non-Recurring Costs A-kit Integration Other System Test SUBTOTAL						14172 584 <b>14756</b>			1200 50 <b>1250</b>					
Support Cost Fielding Support Program Management SUBTÖTAL						3698 2070 <b>5768</b>			6970 1818 <b>8788</b>					
TOTAL				$\dashv$		41904 2004			43183 65266					

Exhibit I	Exhibit P-5a. Budget Procurement History and Planning	History a	nd Planning					Date:	February 2000	8
Appropriation / Budget Activity/Serial No:		Weapon System Type:	m Tvpe:		P-1 line Item Nomenclature:	omenclature:			1	
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities					)	AIRBORNE	AIRBORNE COMMUNICATIONS (AA0705)	ONS (AA07	(50	
WBS Cost Elements:	Contractor and Location	Contract Method	Location of PCO	Award Date	Award Date Date of First	ΔŢ	Unit Cost	Specs Avail	Date Revsn	RFP Issue Date
Fiscal Years		and Type			Delivery	Each	\$000	Now?	Avail	
AN/ARC-220 HF Airborne Radio FY99	Rockwell International, IA		CECOM	66-qə <sub>-</sub>	Dec-99	909	23	Yes		
FY00 FY01	Rockwell International, IA Rockwell International, IA	Option Option	CECOM	Feb-00	May-01	494	23	×		
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FY99	Rockwell International, IA	Option	CECOM	Feb-99	Deb 99	100	29	Ϋ́		
FY00	Rockwell International, IA	Option	CECOM	Feb-00	Aug-01	99	30	Ϋ́		
FY01	Rockwell international, IA	Option	CECOM							
		-								
REMARKS:										

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AN/VRC-100 Ground HF Radio	2	66	Α	100	100		Щ				$\vdash$	_	$\dashv$		Ц															
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